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Report No: PAD4778

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF US\$20 MILLION
FROM THE TRUST FUND FOR GAZA AND WEST BANK (TFGWB)

TO THE

PALESTINIAN LIBERATION ORGANIZATION
(FOR THE BENEFIT OF THE PALESTINIAN AUTHORITY)

FOR

PHASE 1 OF THE MULTI-PHASE PROGRAMMATIC APPROACH

SUPPORTING AN EDUCATION REFORM AGENDA FOR IMPROVING TEACHING,
ASSESSMENT AND CAREER PATHWAYS (SERATAC)

WITH AN OVERALL FINANCING ENVELOPE OF US\$60 MILLION

March 4, 2022

Education Global Practice
Middle East And North Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective March 1, 2022)

Currency Unit = Israeli Shekel

US\$ 1 = ILS 3.22

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

AI	Artificial Intelligence
ARA	Access restricted areas
AS	Assistance Strategy
AUP	Agreed Upon Procedures (AUP)
CCB	Climate Co-Benefits
CERD	Center for Research and Development
COVID-19	Coronavirus disease 2019
DFIL	Disbursement and Financial Information Letter
ES	Environmental and social
E2WTP	Education-to-Work Transition Project
ECD	Early Childhood Development
ECE	Early Childhood Education
EGRA	Early Grade Reading Assessment
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESO	Environmental and Social Officer (ESO)
ESP	Education Sector Strategic Plan
ESRS	Environmental and Social Review Summary
ESSs	Environmental and Social Standards
ESWG	Education Sector Working Group
ETEC	Education and Training Evaluation Commission
EU	European Union
FCV	Fragility, conflict and violence
FM	Financial management
GBV	Gender based violence
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GIZ	German Society for International Development
GMs	Grievance mechanisms
GoI	Government of Israel
GRS	Grievance Redress System
GTS	Graduate Tracking System
IEA	International education Association
ICT	Information and Communication technology
IFRs	Interim Financial Reports
ILSA	International Large-Scale Student Assessment
IP	Implementation Plan
IPF	Investment Project Financing
IPF-PBC	Investment Project Financing with Performance Based Conditions
ISA	International Standards on Auditing
JFA	Joint Financing Agreement
JFPs	Joint Financing Partners
JICA	Japan International Cooperation Agency
KG	Kindergarten
LMIS	Labor Market Information system
LMP	Labor management procedures
LSCE	Life Skills and Citizenship Education

M&E	Monitoring and Evaluation
MDB	Multilateral Development Banks
MENA	Middle East and North Africa
MILO	Monitoring Impacts on Learning Outcomes
MOE	Ministry of Education
MOHESR	Ministry of Higher Education and Scientific Research
MPA	Multiphase Programmatic Approach
MSA	Modern Standard Arabic
NDP	National Development Plan
NGOs	Nongovernmental organizations
NIET	National Institute for Educational Training
NLSA	National Large-Scale Student Assessment
NPV	Net Present Value
OECD	Organization for Economic Co-operation and Development
OHS	Occupational Health and Safety
PA	Palestinian Authority
PACPA	Palestinian Association of Certified Public Accountants
PBC	Performance-based condition
PBL	Project-based learning
PBR	Performance-based result
PCBS	Palestinian Central Bureau of Statistics
PCU	Project Coordination Unit
PDO	Project Development Objective
PforR	Program-for-Results
PISA	Programme for International Student Assessment
POM	Project Operational Manual
PPSD	Project Procurement Strategy for Development
PrDO	Program Development Objective
Q	Quarter
RBF	Results-based Financing
RF	Results Framework
SBA	Standardized school-based assessment
SC	Steering Committee
SEA	Sexual exploitation and abuse
SEP	Stakeholder Engagement Plan
SERATAC	Supporting an Education Reform Agenda for Improving Teaching, Assessment and Career Pathways
SH	Sexual harassment
SIA	Social Impact Assessment
STEM	Science, technology, engineering, and mathematics
TEIP	Teacher Education Improvement Project
TIMSS	Trends in International Mathematics and Science Study
TMT	Task Management Team
TOR	Terms of Reference
TVET	Technical and Vocational Education and Training
UIS	UNESCO Institute for Statistics
UNICEF	United Nations Children's Fund
UNMAS	United Nations Mine Action Service
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
USAID	United States Agency for International Development

UXO	Unexploded Ordnances
VA	Verification Agent
WA	Withdrawal Application
WB&G	West Bank and Gaza
WBG	World Bank Group
Y-o-y	Year-on-year



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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
West Bank and Gaza	Supporting an Education Reform Agenda for Improving Teaching, Assessment and Career Pathways	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P177299	Investment Project Financing	Moderate

Financing & Implementation Modalities

<input checked="" 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"/> Performance-Based Conditions (PBCs)	<input 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 checked="" 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)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Project Approval Date	Expected Project Closing Date	Expected Program Closing Date
25-Mar-2022	30-Dec-2026	31-Dec-2030

Bank/IFC Collaboration

No

MPA Program Development Objective

Improve education outcomes of primary and secondary students and introduce new student pathways leading to tertiary education.

MPA Financing Data (US\$, Millions)



MPA Program Financing Envelope	60.00
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Proposed Project Development Objective(s)

Improve teaching practices in primary grades and introduce effective career guidance for secondary school students.

Components

Component Name	Cost (US\$, millions)
Component 1: Building Strong Foundations for Learning and Wellbeing	6.00
Component 2: Harnessing Technology to Improve STEM Learning and Better Equip Students for the Labor Market	7.00
Component 3: Strengthening the Student Learning Assessment System	6.00
Component 4: Project Management and Implementation Support	1.00

Organizations

Borrower: Palestinian Liberation Organization

Implementing Agency: Ministry of Education

MPA FINANCING DETAILS (US\$, Millions)

MPA Program Financing Envelope:	60.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	0.00
of which other financing sources:	60.00

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	20.00
Total Financing	20.00
of which IBRD/IDA	0.00



Financing Gap	0.00
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DETAILS

Non-World Bank Group Financing

Trust Funds	20.00
Special Financing	20.00

Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2022	2023	2024	2025	2026	2027
Annual	0.08	1.24	1.89	3.47	5.92	7.40
Cumulative	0.08	1.32	3.21	6.68	12.60	20.00

INSTITUTIONAL DATA

Practice Area (Lead)

Education

Contributing Practice Areas

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	● High
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Substantial
7. Environment and Social	● Moderate



8. Stakeholders	● Moderate
9. Other	
10. Overall	● Moderate
Overall MPA Program Risk	● 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

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant



NOTE: For further information regarding the World Bank’s due diligence assessment of the Project’s potential environmental and social risks and impacts, please refer to the Project’s Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

Schedule 2, Section I.C.

The Recipient shall, through the Palestinian Authority, not later than 30 days after Effectiveness Date adopt a Project Operations Manual satisfactory to the Bank, which shall include the rules, methods, guidelines, standard documents and procedures for the carrying out of the Project.

Conditions

Type	Financing source	Description
Effectiveness	Trust Funds	<p>(a) The execution and delivery of the Grant Agreement on behalf of the Recipient has been duly authorized or ratified by all necessary governmental and corporate action;</p> <p>(b) The Subsidiary Agreement referred to in Section I.A.1 of Schedule 2 to the Grant Agreement has been executed on behalf of the Recipient and the Palestinian Authority; and</p> <p>(c) The Social Impact Assessment and the Labor Management Procedures have been approved by the Bank and disclosed in country and on the Bank’s website.</p>
Disbursement	Trust Funds	<p>Notwithstanding Schedule 2, Section III. Part A of the Grant Agreement, no withdrawal shall be made:</p> <p>(a) for payments made prior to the date of the Grant Agreement, except withdrawals up to an aggregate amount not to exceed \$ 4,000,000 may be made for payments made twelve months prior to this date for Eligible</p>



		<p>Expenditures under Categories (1) and (2) of the Project; or</p> <p>(b) in respect of Category (2) above, until and unless the Recipient has: (i) furnished evidence satisfactory to the Bank that the PBC for which payment is requested has been achieved as set forth in Schedule 3 to the Grand Agreement, including the corresponding verification report(s) referred to in Section E of Schedule 2 to the Grant Agreement; and (ii) complied with the instructions under the Disbursement and Financial Information Letter, including the submission to the Bank of evidence acceptable to the Bank of the incurrence of PBC Eligible Expenditures for which payment is requested.</p>
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I. STRATEGIC CONTEXT

A. Country Context

- 1. The peace process between Israel and the Palestinian territories has been stalled for years.** For 11 days in May 2021 following tensions during the month of Ramadan, Israel and the de facto authority in Gaza (*Hamas*) traded airstrikes and rocket attacks, *respectively*. The conflict resulted in casualties on both sides and particularly in Gaza where death, injuries, displacement, and damage to critical infrastructure are having far-reaching effects. The Government of Israel (GoI) has seen a new administration come to power in June 2021. In late August 2021, high-ranking Palestinian and Israeli officials met for the first time in over a decade, discussing a wide range of issues such as security, diplomacy, economics, and civil affairs.
- 2. The *Fatah* (political party led by President Abbas)-led Palestinian Authority (PA) and the de facto authority in Gaza remain divided.** The divide creates a challenging fiscal situation for the PA, particularly since about 30-40 percent of PA expenditures are in Gaza, while only about 10 percent of the PA's total revenues come from Gaza. Legislative and presidential elections that were planned for May and July 2021, respectively, would have been the first such elections since 2006, but were delayed indefinitely by the PA in April 2021.
- 3. A shift in global and regional dynamics has resulted in a substantial decline in donor aid.** Overall aid provided to West Bank and Gaza (WB&G) has dropped from about US\$1.2 billion in 2014 to approximately US\$317 million in 2021. Budget support was only a half of what was received in 2020. This drop is attributed to the absence of funding from Gulf Cooperation Council (GCC) countries, lower contributions by donor countries to the World Bank's Multi Donor Trust Fund, and a delay in the European Union (EU)'s contribution, which is now expected to be fully disbursed in 2022. The decline in external financing has led to an increase in arrears to the private sector and domestic borrowing, with the stock of domestic debt rising to US\$2.5 billion as of December 2021.
- 4. Economic activity is beginning to pick up.** Despite new waves of the Coronavirus disease 2019 (COVID-19) cases, lockdowns have been significantly eased in 2021. This combined with the pickup of the vaccination campaign allowed consumer confidence to slowly pick up and business activity to gradually rebound. According to data published by the Palestinian Central Bureau of Statistics (PCBS), real Gross Domestic Product (GDP) of the Palestinian economy grew by 5.6 percent in the first three quarters of 2021, year-on-year (y-o-y).
- 5. Unemployment and poverty continue to be high.** The overall Palestinian unemployment rate stood at 27.3 percent in quarter (Q) 3 2021, including 14.7 percent in the West Bank and 50.2 percent in Gaza. This reflects the challenging economic situation in Gaza due to years of restrictions, exacerbated by the May 2021 conflict and the COVID-19 pandemic. Among women, the unemployment rate both in the WB&G is even higher at 31.5 and 68.6 percent, respectively. Based on the latest available official data¹, 22 percent of Palestinians lived below the US\$5.50 a day poverty line (based on 2011 purchasing power parity) in 2016-2017. In the West Bank, poverty rates are lower but sensitive to shocks in household expenditures. In Gaza, unemployment and poverty indicators have deteriorated systematically. According to the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), 80 percent of the population in Gaza is dependent on international assistance. Aid and remittances are almost the only source of foreign exchange inflows that are driving consumption. World Bank projections, based on per capita GDP growth, suggest that overall, the poverty rate in the WB&G has been constantly increasing since 2016,



reaching 28.9 percent in 2020, representing approximately 1.4 million people living in poverty. Recent estimates by the World Bank indicate that the conflict has increased poverty in Gaza to 59.3 percent in 2021.

6. **Economic challenges will be further exacerbated by the increasing vulnerability of WB&G to climate change.**

Shortage of power and water accompanied by increasingly warm temperature and irregular rainfalls could have a negative impact on agriculture and industries², making it more difficult for impoverished families to continue investing in their children’s education.³ Climate variability is likely to compound existing challenges such as water scarcity, extreme heat, wildfires, and landslides. WB&G will be significantly affected by climate change, with climate models for the Eastern Mediterranean region showing mean temperature increases between 3 to 5°C by mid-century and mean annual rainfall reductions of 10 to 50 percent.⁴ The consequences of climate change are expected to have a direct impact on student learning as well as their physical and mental wellbeing. This is evidenced by studies on the decrease of school attendance, test scores, and child health indicators caused by increased heat and air pollution in other countries such as the United States, India, and Chile.⁵ Communities with lower educational attainment are expected to be less adaptive in their disaster preparedness, response and recovery from climate shocks.⁶ The Palestinian education sector can play a crucial role in climate change adaptation and mitigation by shifting mindsets, promoting behavior change, strengthening individuals’ resilience to shocks, and building the skills needed for a green economy.

B. Sectoral and Institutional Context

7. **A Palestinian child starting school at age four can expect to complete 12.2 years of schooling by her 18th birthday.**^{7,8}

This is because opportunities for young children to receive early childhood education have steadily increased, reaching 67.8 percent in 2019.⁹ Primary and lower secondary education are virtually universal at 97.4 percent¹⁰, and upper secondary education enrollment is also high at 71.8 percent.¹¹ This places WB&G not only above the Middle East and North Africa (MENA) average (11.6 expected years of schooling), but also ahead of the average for upper middle income countries (11.8 expected years of schooling).

8. **Yet, WB&G is facing a learning crisis: when factoring in what Palestinian children actually learn at school, the adjusted years of schooling drop to only eight years.**^{12,13}

In other words, in spite of the more than twelve years that Palestinian children can expect to spend in school, on average, they are only learning the equivalent of eight. The Bank’s Human Capital Index has shown that poor quality education is the most important factor holding back human capital formation in WB&G.¹⁴ Systemic and thus far intractable challenges starting from early childhood education to secondary education are key drivers of this learning crisis.

Early Childhood Education (Kindergarten Levels 1 and 2)

9. **By ages 4 and 5, only two thirds of Palestinian children have the opportunity to receive early childhood education (ECE).**

While pre-primary enrollment has been steadily growing in recent years (from 64.4 percent in 2017 to 67.8 percent in 2019)¹⁵, it is estimated that most children from families in the bottom income quintile do not benefit from it. For children participating in pre-primary education, challenges in the quality of services limit the benefits of ECE on their learning and development. Kindergarten (KG) teachers in WB&G are often underqualified to engage children in age-appropriate, play-based learning activities that develop their early cognitive and socioemotional skills. This is particularly the case for private KG teachers catering to lower-income households. Far from leveling the playing field for all children, this enrollment structure and its associated quality limitations are likely to widen the school readiness gap along socioeconomic lines in the first years of primary school.



10. To support the Ministry of Education (MOE) in addressing these challenges, the Bank financed the Improving Early Childhood Development in the WB&G project (P168295) in 2020. Investments to improve both access and quality of pre-primary education are at the heart of this operation. Through a combination of classroom refurbishments in public primary schools, and the roll-out of a public private partnership with private KG providers, the Bank is investing in the expansion of public and private supply of pre-primary education services. In parallel, the project is supporting the development and implementation of a high-quality professional development program for KG teachers—with a particular focus on professionalizing private sector teachers that lack ECE qualifications.

Lower Primary Education (Grades 1-4)

11. **In their early grades, Palestinian students, on average, do not gain basic reading proficiency.** Reading with comprehension is arguably the most important skill a child needs to learn in their early school years. Without basic reading proficiency, children are unable to move on to “read to learn.” Reading is the gateway to further learning, including in science, technology, engineering, and mathematics (STEM). It is also essential for developing deeper learning skills such as problem solving and critical thinking. The World Bank’s Learning Poverty indicator measures countries’ progress in terms of children having the foundational skill of reading with understanding by the age of 10. There is currently no measure of Learning Poverty in WB&G due to the lack of participation in international assessments of student learning at around that age. However, a 2014 Early Grade Reading Assessment (EGRA) found that over a third (36 percent) of 2nd-graders in West Bank could not answer a single age-appropriate reading comprehension question, and less than half (46 percent) could not read more than 15 correct words per minute, well below the MOE’s expectations.¹⁶ Boys’ reading comprehension is particularly low: 43 percent of boys could not answer a single age-appropriate reading comprehension question in Grade 2 compared to 29 percent of girls. Over a quarter of boys (27 percent) in the 2014 EGRA could not read a single correct word of an age-appropriate text in a minute compared to 17 percent of girls.

12. Poor reading outcomes are common among Arabic-speaking countries and there is a myriad of contributing factors. A 2021 World Bank report on “Advancing Arabic Teaching and Learning: A Path to Reducing Learning Poverty in MENA” found that some of the key factors influencing poor reading outcomes in the region included (i) the lack of exposure before school to children’s books and to vocabulary, including Modern Standard Arabic (MSA), through reading to children and word games, for example; (ii) poor awareness of the science of learning to read and how best to teach Arabic language to young native speakers; and (iii) ineffective preparation of teachers to teach reading in engaging and appropriate ways. Discussions with the MOE and university staff indicate that these issues, typically seen across Arabic-speaking countries, are also evident in WB&G. A “delivery” model of education, in which the same material is presented in the same way and at the same pace to a class without alignment to their levels or needs, is particularly ineffective for reading, for which progression varies widely among children in the early grades.

Upper Primary and Lower Secondary Education (Grades 5-9)

13. **As Palestinian students move to upper primary and lower secondary education, large deficiencies in STEM skills become visibly manifest.** Without basic reading proficiency, on average, Palestinian students are unable to gain mastery in early numeracy. Learning deficiencies in mathematics accumulate grade after grade, such that toward the end of lower secondary education (Grade 8) students are substantially behind in terms of knowledge and skills expected at that grade level. Results from the Trends in International Mathematics and Science Study (TIMSS) 2011¹⁷ showed that more than half of Palestinian students in Grade 8 did not meet the Low International Benchmark in mathematics, meaning they were not able to work with whole numbers and basic graphs.¹⁸ In that same assessment, WB&G was



outperformed by neighboring MENA countries such as Jordan and Lebanon, and ranked 36th out of 45 participating countries.¹⁹ In the science test, WB&G had the fourth-largest gender gap out of 42 participating countries, with boys considerably underachieving compared to girls. Overall, 41 percent of Palestinian students did not reach the Low International Benchmark, meaning that they did not recognize basic facts from the life and physical sciences, nor demonstrated some familiarity with physical phenomena.²⁰ Adding to deficiencies in mathematics and science, recent evidence also highlights shortcomings in students' digital skills. In 2018, an MOE assessment of basic digital skills among Grade 10 students revealed that only 13 percent of students knew how to send an email with an attachment, and less than half could apply a basic algorithm in a spreadsheet.²¹

14. **Deficiencies in STEM skills are a result of many interrelated factors.** Key amongst these factors is the ineffective preparation of teachers in the use of evidence-based classroom practices that are conducive to high-quality STEM skills development, and in providing differentiated instruction to address the heterogeneity in learning levels that become visibly manifest in upper primary education grades in mathematics.^{22,23} Current teaching practices in upper primary and lower secondary education classrooms leave many students bored and/or struggling to find relevance and meaning in their STEM classroom experiences.²⁴ This is consistent with educational research in other countries that shows a steep decline in science interest and achievement among middle grade students.²⁵ A growing body of evidence suggests that effective STEM instruction seeks to activate students' prior knowledge, supports deeper reasoning and inquisitive thinking, promotes collaborative problem-solving, integrates knowledge from across subjects, and continuously contextualizes mathematical and scientific concepts helping students to draw connections with their daily lives through, for instance, project-based learning (PBL).²⁶ Beyond shortcomings in their STEM classroom instruction, professionalized career guidance — often provided by career counselors in other countries — and meaningful extracurricular opportunities to help students identify, explore and nurture their talents and interests in STEM early on, are largely absent in Palestinian schools. Together, these early experiences in STEM education are likely to shape students' attitudes and mindset toward mathematics and science subjects and prematurely bias their desire to pursue (or not) a STEM career.²⁷

Upper Secondary Education (Grades 10-12)

15. **In upper secondary, Palestinian students need to decide what educational track to pursue.** By Grade 10, students must choose between pursuing an academic track or a technical vocational education and training (TVET) one. The overwhelming majority (97.6 percent)²⁸ choose the academic track, as TVET carries with it a negative cultural stigma in Palestinian society associated with lack of academic success.²⁹ Through its Education Sector Plan (ESP) and aligned donor support, the MOE intends to improve TVET quality and gradually change this associated stigma. By Grade 11, students in the academic track need to further choose between academic streams. Most students (65 percent) and particularly the poorer performers, choose the Humanities stream for several reasons, including: (i) they are unprepared for the STEM stream, lacking the necessary mathematics, science, and digital knowledge and skills, (ii) they have received limited career guidance and opportunities to identify, explore, and nurture their talents and interests in STEM, and (iii) they are discouraged by the relatively high scores required in the secondary school leaving examination ('Tawjihi') for entry into higher education STEM fields such as engineering.³⁰ This results in only 35 percent of students choosing the STEM stream.³¹

16. **By Grade 12, Palestinian students sit for the 'Tawjihi' — a high-stakes examination that will determine their future academic and professional life.** Each year, around 79,000 Grade 12 students in WB&G sit for the final secondary school exam (the 'Tawjihi'), which serves a dual purpose: (i) it certifies completion of secondary school, and (ii) it determines admission into higher education. The Tawjihi includes examinations on 8 subjects administered over a period of 2.5 weeks. The tests rely heavily on rote memorization of knowledge and do not focus on higher-order



thinking skills such as applied problem solving. Results from other exams and coursework are not factored into students' final grade. The Tawjihi has been in place for decades and has set powerful incentives that skew learning toward rote memorization and fuel a large private tutoring industry that exacerbates inequalities of opportunity. Despite its many shortcomings, the exam has not changed substantially over the years and it continues to play a key role in Palestinian society. Complex political economy dynamics have caused previous reform attempts to fail. Over the past year, however, the MOE has launched a new, ambitious reform dialogue on the Tawjihi with key stakeholders. A secondary school diploma independent of the Tawjihi is under discussion, and the Ministry also aims to change the content and format of test items toward assessing higher-order skills such as critical thinking, problem-solving, and applying knowledge. While the reform is still at an early stage, the MOE has demonstrated strong political will and leadership to move this agenda forward.

Tertiary Education and the Transition to the Labor Market

17. **The current structure of secondary education and the design of the Tawjihi leave Palestinian students with limited pathways leading to tertiary education and the labor market.** First, each year approximately 23,000 Grade 12 students fail the Tawjihi.³² This failure closes any pathways leading them to tertiary education, including access to technical or vocational colleges. It also creates bleak prospects for them in the labor market, as they have no secondary school certification that acknowledges their completion of 12 years of education. For those passing the Tawjihi (around 55,500 each year), their pathway to tertiary education is quite rigid. Entry into any of the 51 tertiary education institutions (32 in the West Bank, 17 in Gaza, and 2 open universities)³³ is determined by an aggregated Tawjihi score, regardless of the applicants' preferences, talents, and educational achievement trajectory. A more nuanced approach would, for example, factor in grades from school-based exams completed in upper secondary education or put more weight on Tawjihi results of those subjects closely related to the fields of study that students apply for.

18. **The pathway to pursuing STEM in tertiary education is narrow, mirroring the earlier tracking of students in Grade 11.** Around 60,000 Palestinian students enroll each year in tertiary education. Only 22.5 percent enroll in STEM-related fields of study (of which 44 percent are female and 56 percent are male)³⁴, roughly a quarter enroll in the field of education, a third in law and business; other significant fields of study include medicine, the arts, humanities, and communication. Ensuring a sufficient and high-quality supply of STEM skills is critical not only for fulfilling the needs of the future workforce and stimulating economic growth, but also for producing researchers and innovators who can help to solve some of the intractable challenges that WB&G faces.³⁵

19. **Transition into the labor market is a significant challenge for many tertiary education graduates.** Annually, close to 40,000 students graduate from tertiary education institutions (of which 63 percent are female and 37 percent are male). Over 80 percent (81.6) of male graduates enter the labor force, while only 52.3 percent of female graduates decide to do so, for an average labor force participation of 65.9 percent.³⁶ Yet, employment opportunities are bleak. The unemployment rate for tertiary education graduates in West Bank stands at 18.8 percent and is much higher in Gaza (47.8 percent). Labor market outcomes also vary by higher education field of study, with a sharp difference observed between unemployment rates of Humanities graduates (31.8 to 45.6 percent, depending on the subfield) and STEM graduates (12.4 to 32.5 percent, depending on the subfield).³⁷ This challenging transition is a result of the significant demand-side constraints that characterize the Palestinian labor market, namely, the low absorptive capacity of the private sector and the limited access to job opportunities abroad. On the other hand, supply-side challenges are also pronounced, with many employers reporting a skills mismatch.³⁸ Through the Education-to-Work Transition Project (E2WTP) and Additional Financing (P129861), the Bank has aimed at directly addressing this skills mismatch by



strengthening the coordination between tertiary education institutions and the labor market and by improving the market relevance of study programs.

Cross-cutting challenges

20. **Across all education levels, the lack of high-quality learning data and its effective use for policymaking, continuous school improvement, and accountability is a key challenge.** WB&G has a long track record of administering national assessments in Arabic, mathematics, and science every two years since 1998 to a nationally representative sample of students in Grades 5 and 9. Its technical design, however, has some shortcomings. For example, the assessment is lacking clear definitions of proficiency levels and cut-off scores following robust standard-setting methodologies. As such, the results cannot be used to report on Learning Poverty and its use by policymakers and school leaders is limited. Notably, WB&G has joined the OECD's Programme for International Student Assessment (PISA) 2022 for the first time and will participate in TIMSS 2023, which was last administered in WB&G in 2011.³⁹ These assessments will deliver high-quality, internationally comparable learning data that is urgently needed to better inform education policy decisions.

21. **The COVID-19 pandemic and the recent Gaza conflict have taken a heavy toll and further exacerbated existing challenges in the education sector.** COVID-19 school closures and almost a year of distance education have resulted in significant missed learning, especially among the youngest and most disadvantaged students. The MOE developed an e-schools virtual learning environment and provided some printed materials during the period of distance education. However, few students had the necessary electronic devices and connectivity to fully benefit from e-schools, and students in the early grades were not able to study independently, requiring the support of parents or other family members. A World Bank simulation suggests that the pandemic may have caused learning-adjusted years of schooling in WB&G to drop by around 0.8 years. In Gaza, learning losses are likely even more dire. The recent conflict damaged education infrastructure and inflicted severe trauma on countless children and youth, threatening prospects for many children to adequately learn this academic year.⁴⁰

22. **Efforts to address these systemic challenges have thus far been piecemeal, shortsighted, and hindered by limited funding.** Given the political and economic context of WB&G, the MOE is heavily dependent on donor funding. While there have been many successful initiatives in the education sector⁴¹, these have often been limited to small pilots or interventions and have generally not been scaled-up or embedded into the education system. For example, a technically strong early grades reading pilot was discontinued with the closing of a donor's project⁴²; a successful teacher training initiative was not mainstreamed into the education system's continuous professional development due to lack of funding; and various innovative initiatives supporting STEM education were so small that they were unable to permeate the system.

23. **Through the 2017-2022 Education Sector Plan (ESP), the MOE has put forward an ambitious education agenda that aims at overcoming piecemeal approaches to these critical education challenges, signaling technical and political commitment to education partners.** The ESP is centered around three sector goals focused on ensuring equitable access to education and balanced enrollment in secondary education tracks⁴³, developing student-centered teaching and learning methods⁴⁴, and enhancing accountability and results-based leadership.⁴⁵ Preparation for the 2023-2030 ESP is underway, with a clear focus on a comprehensive, longer-term education agenda that harmonizes different partners' initiatives and efforts under a coherent framework of action. **This presents a unique opportunity for partners, including the World Bank, to help shape and implement a long-term vision, while seeking innovative approaches and**



instruments that can provide the technical, financial, and implementation continuity that this ambitious vision requires.

C. Relevance to Higher Level Objectives

24. The “Supporting an Education Reform Agenda for improving Teaching, Assessment and Career Pathways” Program (SERATAC, which means *your life journey or pathway in Arabic*), will contribute to strategic priorities outlined in the PA’s national development plan (NDP) 2021-2023, which centers on building a more resilient economy and developing human capital as part of its core strategy.

25. The Program objectives are aligned with, and are a key element of, the Assistance Strategy (AS) FY22-25 (Report No. 156451-GZ), discussed at the Executive Board in April 2021. The AS is aligned with the NDP’s main pillars and focuses on two areas: “strengthening institutions for economic and social prosperity and boosting innovation” and “diversification for a well-connected Palestinian economy.” SERATAC directly contributes to the first area of focus of the AS on achieving better human development outcomes by focusing on (i) prioritizing investments in education to promote human capital, particularly in a fragility, conflict, and violence (FCV) context, (ii) supporting the transition toward a digital economy by equipping Palestinian youth with digital skills for the labor market, and (iii) promoting fruitful collaboration with the private sector to maximize finance for development.

26. The Bank support is also aligned with the 2020 World Bank Group (WBG)’s COVID-19 Crisis Response Approach Paper pillar on “Protecting the Poor and Vulnerable People” and the 2021 WBG MENA enlarged strategy pillar on “Strengthening Human Capital” with its focus on improving learning outcomes, skills development, and youth employability. In addition, the program responds to the MENA Human Capital Action Plan, which is focused on building, protecting, and utilizing human capital. Finally, the Program is also in synchronization with the WBG’s Strategy for Fragility, Conflict, and Violence 2020-2025, which describes investing in human capital as the first of six high-priority issues that the WBG places emphasis on in FCV settings.

D. Multiphase Programmatic Approach

i. Rationale for Using MPA

27. Learning is one of the most complex outcomes to achieve in the field of development and, because of this, successful education reforms take time to implement.⁴⁰ In line with this, the Palestinian Education Sector Strategic Plan (ESP) 2017-2022 (as well as the 2023-2030 ESP under development) and the Recovery and Protection Priorities Plan reflect a strong commitment to move beyond intermediary outputs in order to maintain a sustained focus on a comprehensive, longer-term education agenda, that harmonizes different partners’ initiatives and efforts under a coherent framework of action.^{41,42,43} This presents a unique opportunity for the World Bank to help shape and implement such a long-term vision.

28. The MPA instrument offers the needed innovation for the Bank to support the long-term education agenda that the MOE is envisioning. Specifically, the MPA provides the opportunity for the Bank to (i) help shape the PA’s ambitious vision into a coherent education reform agenda, (ii) signal its long-term commitment to this agenda through the proposed MPA, and (iii) harmonize donors and development partners’ efforts around this long-term agenda, including the possibility of raising more donor financing. The following distinctive features of the MPA make it



particularly suited for supporting such an endeavor in WB&G, offering political, financial, technical, and implementation continuity that is required to sustain a long-term education agenda focused on student learning.

- **Political commitment and continuity.** The MPA places emphasis on a long-term vision that can strengthen political commitment and continuity. SERATAC is built on the progress achieved under the 2017-2022 ESP and, by taking a forward-looking approach, it gives assurances to the MOE that it can commit in its 2023-2030 ESP to a higher level of ambition from the outset. This approach can help sustain commitment to the agenda over a decade. The extended time horizon of the MPA changes the incentive structure of stakeholders and can prevent a “rush for results”, replacing a disproportionate focus on low-hanging fruits with an emphasis instead on addressing difficult — yet necessary — reform steps.
- **Financial continuity.** The financial continuity offered by the MPA will further enable the Ministry to shift toward a longer-term approach to planning. Given the political and economic context of WB&G, the MOE is heavily dependent on donor funding (with more than 50 percent of its development budget financed by international development partners⁴⁶). Efforts to address the systemic challenges in the Palestinian education sector have been fragmented and repeatedly hindered by limited funding. Continuous uncertainty about the level of funding available to the MOE and the cyclical nature of donor projects have made it difficult for the MOE to pursue a long-term, strategic education agenda. A more predictable level of funding offered by the MPA will support the MOE in shifting towards much-needed, long-term, strategic planning and programming.
- **Technical continuity.** For an education agenda to be technically robust, it requires a clear long-term vision developed from the outset, and different elements and interventions gradually and logically unfolding. The modular design of SERATAC allows the MOE to test, refine, and scale interventions under a coherent umbrella program. It unites a long-term vision with a clear path toward achieving the envisaged objectives. In each phase, the key education areas can be tackled with great technical depth. International experience has shown that in a field as complex as education reform, a long-term approach paired with scope for technical course corrections is imperative for success. As such, the MPA is a very powerful instrument that meets the needs of the Palestinian MOE and its long-term objectives.
- **Continuity in implementation.** The proposed overlapping phases of the MPA will enable continuity of implementation. The MPA will be instrumental in ensuring a seamless transition from one phase of the education agenda to the next, so as not to lose the technical coherence, and the political and implementation momentum required for implementing a long-term reform. This distinguishes the MPA from a series of stand-alone Investment Project Financing (IPF), or an IPF with an Additional Financing.

29. **A longer-term engagement from the Bank in the Palestinian education sector sends a powerful signal to other donors and development partners.** Due to the FCV context of WB&G, support from development partners is unpredictable and subject to substantial fluctuations. With a relatively small financing envelope compared to Bank projects in other countries, the MPA can bring stability to the education agenda and allow stakeholders — the PA, development partners, nongovernmental organizations (NGOs), and the private sector — to plan for the longer term with greater confidence.⁴⁴ This has already started to become evident in the strong endorsement that SERATAC’s long-term approach has received from development partners in WB&G.



30. **A further advantage of the MPA is that it allows for flexibility in the choice of financing instrument.** It is anticipated that this MPA will be a phased introduction to results-based financing (RBF) for the client. Starting as an investment project financing (IPF) with select performance-based conditions in Phase 1, with more planned in Phase 2, it is expected that the final phase may be a Program-for-Results (PforR) if the PA meets the PforR requirements. The RBF mechanism used for selecting indicators has the potential to both support and incentivize the MOE to achieve its goals.

31. **The recognized implementation capacity of the MOE and strong value of education in Palestinian society strongly mitigate any potential risks associated with the long-term approach proposed by the MPA.** The MOE has the best-performing Project Coordination Unit (PCU) of all ministries in WB&G, with ample experience in implementing Bank projects and the new Environmental and Social Framework (ESF). Several members of the MOE technical team have been counterparts for World Bank projects for over a decade. The MPA empowers this core technical team at the Ministry to define a vision and plan that will be sustained in the event of changes at the top of the Ministry hierarchy or changes in the Bank team composition. Leveraging the PCU staff that is currently managing the Early Childhood Development Project, the MOE will be ready to implement Phase 1 as soon as the MPA becomes effective.

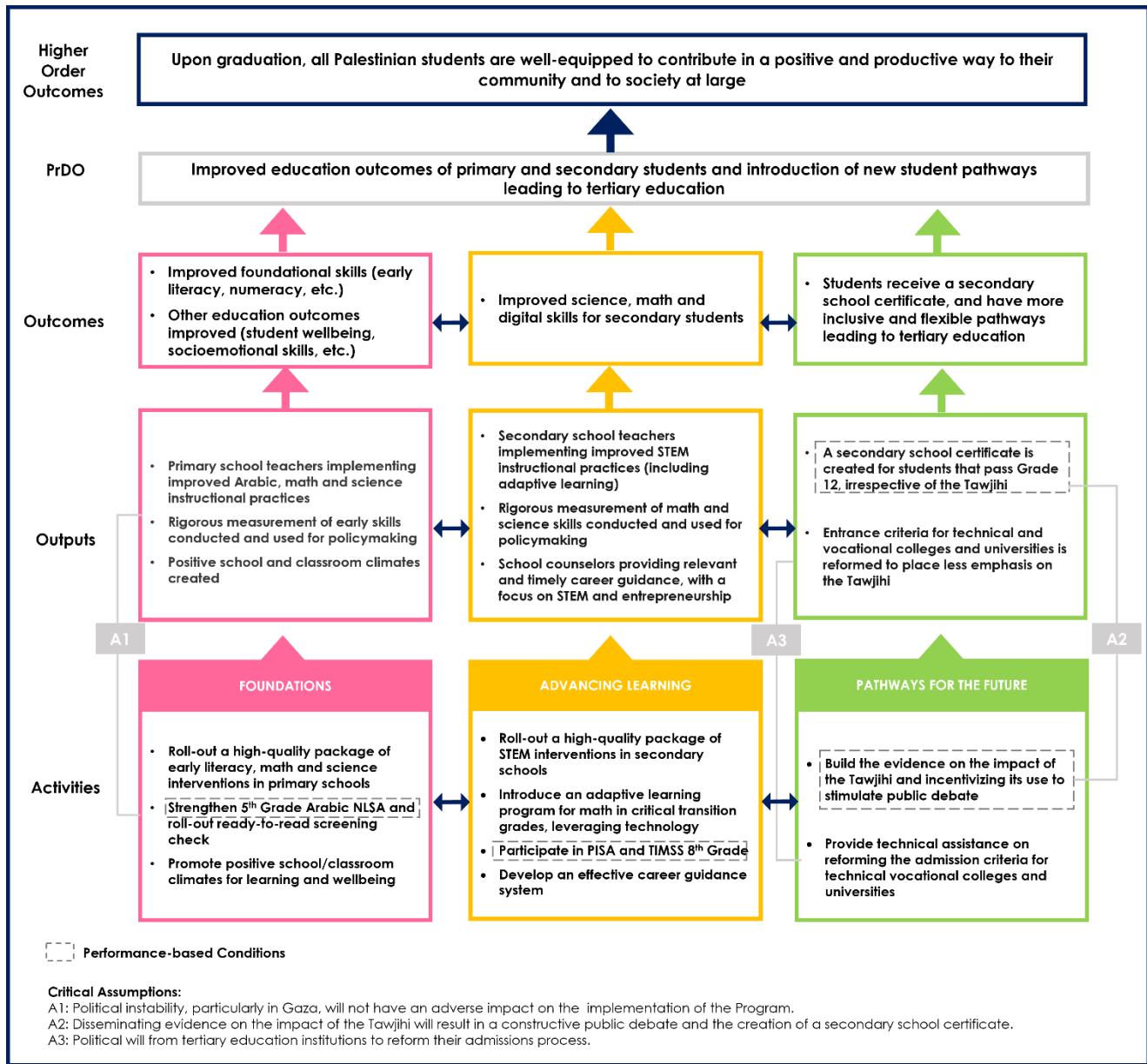
32. **In sum, the MPA’s potential for impact is substantial.** There is strong political will for an ambitious, long-term reform, and eagerness to embed a learning agenda into education policymaking. The MOE leadership has demonstrated strong commitment to evidence-based policymaking and increased accountability by joining PISA and TIMSS after a decade-long absence. In addition, the Minister of Education has publicly endorsed a reform of the Tawjihi and the national assessment system, an endeavor avoided by previous administrations due to its complexity and risk for controversy.

ii. MPA Program Theory of Change

33. The results chain for the Program Development Objective (PrDO) is as follows. See figure 1.



Figure 1. PrDO Results Chain





iii. Program Development Objective (PrDO)

PrDO Statement

34. The PrDO is to “improve education outcomes of primary and secondary students and introduce new student pathways leading to tertiary education.”

PrDO-Level Indicators

35. The SERATAC Program will monitor the following indicators throughout all program phases, while targets may be adjusted after each phase depending on lessons learned and progress made.

PrDO-level indicator	Baseline	Target for overall Program
1. Share of Grade 2 students reaching a minimum oral reading fluency rate	46%	60%
2. Share of Grade 8 students reaching the TIMSS Low International Benchmark in both mathematics and science	48%	55%
3. Share of Grades 1-12 students in classes with improved instructional practices	0%	20%
4. New inclusive and more flexible student pathways leading to tertiary education created	No	Yes



iv. Program Framework

Table 1. Program Framework

Phase #	Project ID	Sequential or Simultaneous	Phase’s Proposed DO*	IPF or PforR	Estimated IBRD Amount (\$ million)	Estimated IDA Amount (\$ million)	Estimated Other Amount (\$ million)	Estimated Approval Date	Estimated Environmental & Social Risk Rating
1	P177299	Simultaneous	Improve teaching practices in primary grades and introduce effective career guidance for secondary school students.	IPF with PBCs	0.00	0.00	20.00	March 2022 to March 2026	Moderate
2		Simultaneous	Improve teaching practices in lower-secondary grades and introduce a new pathway to technical and vocational colleges.	IPF with PBCs	0.00	0.00	20.00	October 2025 – October 2028	Moderate
3		Simultaneous	Improve teaching practices in upper-secondary grades and introduce a new pathway to higher education.	PforR	0.00	0.00	20.00	March 2028 – December 2030	Moderate
Total					0.00	0.00	60.00		
Board Approved Financing Envelope							\$60.00		



36. **Over an eight-year period, the proposed MPA includes three phases focused on three components (or thematic areas) that address the most pressing education challenges in WB&G.** Phase 1 will, on the one hand, respond to medium-term needs resulting from missed learning due to the COVID-19 pandemic and the Gaza conflict, and on the other, lay the foundations for long-term reform of the system. Each phase will gradually and progressively contribute toward the Program Development Objective (PrDO) (see figure 2). There will be a logical scale up of initiatives from primary level (in Phase 1) to lower secondary (Phase 2) to upper secondary (Phase 3). All three phases will be fully anchored in student learning data: Phase 1 will establish the first internationally recognized measurement of student learning in over a decade, with PISA 2022 and TIMSS 2023, while subsequent international assessments in Phases 2 and 3 will enable the establishment of learning trends. Similarly, Phase 1 will see student career guidance improved, while the following phases will increase secondary students’ pathways leading to tertiary education and the labor market.

37. **The three components that will gradually unfold, increasing their scope from phase to phase are (i) foundational skills, (ii) STEM, and (iii) the student assessment system.** Each of these components is briefly summarized in figure 2 (with a full description found in the “Project Components” section).

Figure 2. Development of all Components across all Phases of SERATAC

	PHASE 1 (2022-2026)	PHASE 2 (2026-2028)	PHASE 3 (2028-2030)	
<p>Component 1.</p> <p>Building strong foundations for learning and wellbeing</p>	<p>Sustain and embed improvements in teaching and learning of foundational skills and in the</p> <p>Package of interventions to improve Grades 1-4 mathematics</p> <p>Arabic literacy strategy and package of interventions to improve Grades 1-4 Arabic teaching and learning and create positive school and classroom climates</p> <p>Scale up interventions to Grades 5-6 Arabic teaching and learning</p> <p>Scale up of positive school/classroom climates to higher levels</p> <p>promotion of positive school and classroom climates through updates to systems such as teacher and school evaluation</p>			<p>PrDO</p> <p>Improve education outcomes of primary and secondary students, and increase student pathways leading to tertiary education</p>
<p>Component 2.</p> <p>Harnessing technology to improve STEM learning and better equip students for the labor market</p>	<p>Roll-out of package of STEM interventions to Grades 10-12, and introduction of the adaptive learning program Grade 11</p> <p>Roll-out of package of STEM interventions to improve Grades 7-9 math, science and digital skills including introduction of adaptive learning program to Grade 9</p> <p>Strengthen & operationalize MOE's STEM Framework, roll-out interventions to improve Grades 5-6 math, science & digital skills, and lay foundations for an effective career guidance system</p> <p>Expand the coverage of the career guidance system to tertiary education</p> <p>Sustain career guidance system for Grades 9-tertiary education</p>			
<p>Component 3.</p> <p>Strengthening the student learning assessment system</p>	<p>Participate in TIMSS 2027 & PISA 2028, and establish learning trends</p> <p>Participate in PISA 2025 and publish results</p> <p>Consolidate the assessment policy framework, strengthen Arabic 5th grade NLSA, build evidence for Tawjihi reform, create general secondary school certificate, and collect learning data in PISA 2022 & TIMSS 2023</p> <p>Initial roll-out of Tawjihi reform and revised admissions policy for tertiary education/TVET</p> <p>Strengthen 5th & 9th grade math and science NLSA</p> <p>Continued roll-out of Tawjihi reform (purpose & content of the exam)</p> <p>Full rollout of strengthened NLSAs in Grades 5 & 9</p>			
	REBUILD, LAY FOUNDATIONS	LEARN, REINFORCE, EXPAND	LEARN, REINFORCE, EMBED	

Brief overview of SERATAC’s components over the three phases of the Program

38. **Component 1. Building Strong Foundational Skills for Learning and Wellbeing.** SERATAC will finance WB&G’s efforts to raise foundational skills and wellbeing of Palestinian primary school students, providing each child with a strong foundation for their future learning. In Phase 1, this will be achieved through (i) the



development of an Arabic literacy strategy to set quantifiable goals for children’s Arabic language learning outcomes along with the roles of key actors, and providing a basis and direction for activities and initiatives to improve literacy teaching and learning; (ii) improvements to early grade Arabic language arts instruction (reading, writing, speaking, and listening) in Grades 1–4, including through teacher training and teaching and learning materials; (iii) strengthening of preservice teacher education in classroom practices to improve foundational skills; and (iv) promotion of positive school and classroom climates, including extracurricular activities, so they are conducive to student learning and wellbeing. Through the learning associated with implementing the Phase 1 activities, scaling up would take place in Phases 2 and 3 to reach higher levels and grades for Arabic language arts and positive school and classroom climates; to expand to mathematics and science in the lower primary grades; and to support efforts to sustain and embed improvements in these areas through strengthening of key system mechanisms such as teacher policies, school evaluation, and school improvement planning.

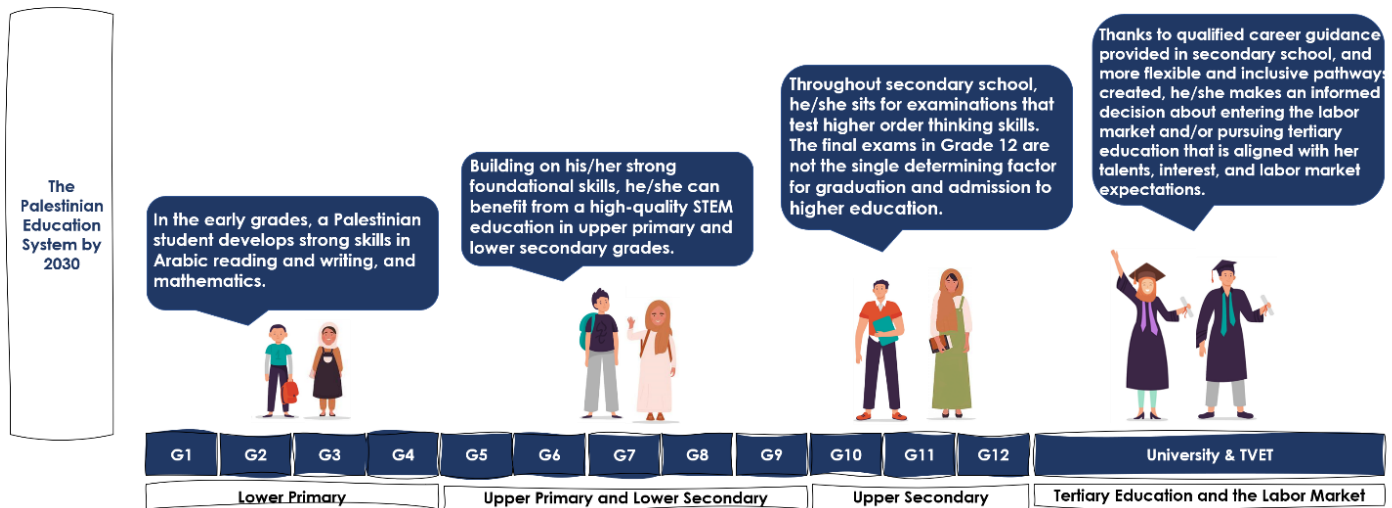
39. **Component 2. Harnessing Technology to Improve STEM Learning and Better Equip Students for the Labor Market.** Through this program component, SERATAC will improve STEM teaching and learning and better equip students to make informed career choices so they have greater prospects for employment. To achieve this objective, under Phase 1, the program component will aim to (i) strengthen and operationalize the MOE’s STEM Framework, (ii) improve upper primary (Grades 5 and 6) students’ mathematics, science, and digital skills through improved pre-service and in-service teacher training as well as an adaptive learning program, and (iii) lay the foundations for an effective career guidance system that helps secondary school students make informed career choices and be better equipped to pursue those choices. Phases 2 and 3 will build on the technical and implementation knowledge gained in the first phase and will focus on scaling up the package of STEM interventions gradually to lower secondary (Grades 7 to 9), and then to upper secondary (Grades 10-12); phase in the adaptive learning program in mathematics to benefit Grade 9 and Grade 11 students, and then expand the scope and reach of the career guidance system to include tertiary education students.

40. **Component 3. Strengthening the Student Learning Assessment System.** Through the third program component, SERATAC will strengthen the Palestinian student assessment system so that it promotes and incentivizes learning at all grade levels. To achieve this objective, under Phase 1, the component will: (i) strengthen the national assessment framework and Arabic language national assessment in Grade 5; (ii) lay the foundations to reform the secondary school leaving examination (Tawjihi) and create a more inclusive pathway to tertiary education and the labor market for secondary school students; and (iii) finance participation of WB&G in two international large-scale assessments (ILSAs) to obtain high-quality learning data. In Phases 2 and 3, the lessons learned during Phase 1 will be applied to support the gradual rollout of Tawjihi reform measures, including the creation of inclusive and more flexible pathways for secondary students to enter into technical vocational colleges and higher education. These phases will also ensure the continued availability and effective use of high-quality data from national and international assessments. This approach will enable the construction of comparable trends in Palestinian student learning outcomes over time, that continuously inform policymaking and provide essential information on which to base decisions regarding school and system improvement, focused on the central goal of student learning.

41. **Gradually, these proposed components will build toward the long-term vision of SERATAC.** By 2030, a first cohort of Palestinian students will have completed a cursus of good quality general education and, having been well served by that education, will be ready to enter the labor market or tertiary education on a strong footing — education should be a race where everyone wins (see figure 3).



Figure 3. Long-Term Vision of SERATAC



42. **The three proposed phases will overlap to ensure continuity of activities over the program based on lessons learned.** The funding estimate for future phases is based on current discussions and could change based on country funding allocation and availability. The duration of each phase is estimated to be as follows:

- Phase 1: Four years (March 2022 – March 2026). It is expected that SERATAC's key implementation arrangements and the core technical design of its interventions will be set-up and developed during the first phase, and as such, a longer implementation duration is desirable.
- Phase 2: Three years (estimated October 2025 – October 2028). Leveraging the implementation arrangements from Phase 1, this phase will be able to scale-up interventions designed in the previous phase in a shorter timeframe.
- Phase 3: Two years (estimated March 2028 – December 2030). The accumulated experience and lessons learned from previous phases will allow activities under this last phase to be implemented with greater efficiency and at a faster pace.

v. Learning Agenda

43. **The Program will finance a Learning Agenda in areas identified as client needs to further improve the quality and development effectiveness of SERATAC.** An overarching assessment will be conducted to investigate four policy questions related to Phase 1 activities, with the primary objective of generating actionable evidence to inform the design/revision of the subsequent phase of the MPA. A third-party assessment of these policy questions would be considered for a robust assessment. Table 2 describes the policy questions and proposes corresponding indicative methodologies to investigate them. This learning agenda will be financed under Component 4. An intermediate indicator has been included under the program's results framework to ensure that the findings from this study are available in time for project preparation of Phase 2 of the MPA.



Table 2. Learning Agenda under Phase 1 of SERATAC

Key policy questions to investigate in Phase 1	Indicative methodology
<p>Policy Question #1. Are the implementation arrangements under Components 1 and 2 adequate in that they allow for the development and implementation of high-quality teacher training?</p> <p>In Phase 1, Components 1 and 2 of the program will rely on a partnership between a renowned international university (in the field of Arabic literacy and STEM education, respectively), local universities with relevant preservice teacher education programs, and the MOE’s National Institute for the Education of Teachers. This implementation arrangement could be leveraged also for Phases 2 and 3. However, to make this determination, it is critical to investigate whether the arrangement is able to bring about the latest international research evidence on teacher training, while at the same time ensuring the development of local capacity and ownership in WB&G.</p>	Process evaluation
<p>Policy Question #2. Have the development of new Arabic literacy resources and the delivery of trainings permeated classroom instruction in lower primary grades?</p> <p>The Arabic literacy interventions developed under Component 1 can only have an impact on student learning if they translate into a change in teaching practices in the classroom. To inform the adaptation and scale up of these interventions to higher primary grades and early mathematics under Phases 2 and 3, it is critical to collect rigorous data on teaching practices using well established classroom observation tools. This data would be complemented by qualitative evidence from teacher interviews or focus group discussions to identify the key drivers of success (or failure) of the interventions to achieve the intended outcomes.</p>	Classroom observations
<p>Policy Question #3. Have the development of new STEM education resources and the delivery of trainings permeated instruction in upper primary grades?</p> <p>Similar to Component 1, it is critical to determine if the STEM interventions developed under Component 2 translate into a change in teaching practices in the classroom to inform the adaptation and scale up of these interventions to lower and upper secondary grades under Phases 2 and 3.</p>	Classroom observations
<p>Policy Question #4. Has the adaptive learning program helped teachers provide differentiated instruction in mathematics that better meets individual needs of students?</p> <p>If proven effective, the adaptive learning program for mathematics that will be developed in Phase 1 could be a critical support to teachers in better tailoring classroom instruction and remedial education across a wide range of contexts. The program will be rolled out in two formats: a high-tech package leveraging Artificial Intelligence (AI)/machine learning in schools with adequate digital infrastructure, and a low-tech package for disadvantaged areas. Classroom observations will help assess the differential impact and cost effectiveness of the two packages and inform the potential for scale-up in other grades.</p>	Classroom observations
<p>Policy Question #5. Has the MOE succeeded in creating an enabling environment to gradually reform the Tawjihi exam?</p> <p>Recent attempts to reform high-stakes secondary school examinations in other MENA countries have met substantial resistance. A political economy analysis and stakeholder mapping could offer important lessons learned to inform Phase 2 of SERATAC as well as other regional reform efforts. The analysis would focus on a detailed review of the type and sequencing of activities that the MOE has undertaken in Phase 1 to engage with different stakeholder groups. This study would complement a rigorous review of the Tawjihi design and outcomes included under Component 3.</p>	Political economy analysis

44. **Component 3 will also provide important inputs to the learning agenda.** The outcomes from international assessments supported under Component 3 of SERATAC will also play a pivotal role in informing the design of interventions to be financed under Phases 2 and 3 of the program. Specifically, the results from PISA 2022 and PISA 2028 will provide baseline and end-line data on key learning outcomes throughout SERATAC. Similarly, the results from



TIMSS 2023 and TIMSS 2027 will shed light on the potential system-level impact of STEM interventions supported under the program.

II. DESCRIPTION OF PHASE 1

A. Development Objective (DO)

DO Statement

45. The development objective in Phase 1 is “to improve teaching practices in primary grades and introduce effective career guidance for secondary school students.”

DO-Level Indicators

DO-level indicator for Phase 1	Baseline	Target by end of Phase 1
1. Share of Grades 1-4 teachers implementing improved Arabic reading instructional practices	0%	25%
2. Share of Grade 5 teachers implementing the adaptive learning program for mathematics	0%	25%
3. Participation of West Bank & Gaza in PISA 2022 and public dissemination of its results	No	Yes
4. Share of Grade 10 students who received guidance from a professionalized school counsellor and reported an increase in their understanding of academic and career pathways	0%	25%

B. Components Description

46. Components and corresponding activities that will be financed under Phase 1 are described below.

Component 1. Building Strong Foundations for Learning and Wellbeing (US\$6 million, Phase 1)

47. Under Phase 1, this component aims to improve Arabic language arts teaching and learning, and improve school and classroom climates, in lower primary education (Grades 1–4). Four subcomponents with associated activities will be undertaken to (i) develop an Arabic literacy strategy, (ii) improve Grades 1–4 Arabic language arts instruction (reading, writing, speaking, and listening), (iii) further develop preservice teacher education, and (iv) promote positive school and classroom climates conducive to student learning and wellbeing.

Subcomponent 1.1 Development of an Arabic Literacy Strategy

48. Focusing on the essential skill of learning to read, this subcomponent supports the PA to set quantifiable goals for children’s Arabic language learning outcomes to be shared widely with all key actors through a clearly articulated Arabic Literacy Strategy that aims to improve children’s development of Arabic. This document would include systemwide measures to improve children’s development of Arabic reading, writing, speaking, and listening skills, fundamental for all further learning, along with action plans and mechanisms to monitor and evaluate progress toward



the goals. The strategy would include the necessary actions of all key actors (MOE, universities, community, etc.), based on the wealth of evidence on raising literacy levels and Arabic language learning outcomes, specifically, as documented in the World Bank’s recent report on “Advancing Arabic Language Teaching and Learning: A Path to Reducing Learning Poverty” (World Bank 2021).⁴⁷ The strategy would provide the rationale and guidance for activities and initiatives to improve instructional practices for Arabic literacy, including those across Component 1.

49. Key factors influencing Arabic language teaching and learning in WB&G would be addressed in the Arabic Literacy Strategy, including (but not limited to): the science of learning to read Arabic; early literacy skills; Arabic language arts standards, curricula, and assessment; instructional practices; Arabic language teacher preparation and development; texts and children’s literature; time allocated to learning Arabic; supporting struggling readers; creating a culture of reading within schools; underachievement of certain groups including boys; and perceptions of Arabic language learning. While disparities in children’s literacy development were evident prior to the COVID-19 pandemic, they are likely to have increased in size during this period, and therefore reducing disparities will be a key initial focus of the strategy. The strategy would incorporate previous and current related initiatives to help sustain, scale up, and embed them in the education system, while also identifying and addressing gaps. For example, relevant groundwork has been undertaken as part of (a) the Early Grade Reading Project (RTI International, funded by USAID); (b) the Life Skills and Citizenship Education initiative led by the United Nations Children’s Fund (UNICEF); (c) the Teacher Education Improvement Project (TEIP) (P152914); (d) the Improving Early Childhood Development in the WB&G (P168295); and (e) the World Bank’s Read@Home initiative, among others. By bringing together such initiatives under the strategy, the sustainability and scale-up of these individually successful programs and projects would be assured, and any future donor support could be channeled in ways that contribute toward the strategy’s goals and implementation plans.

50. Support to the development of the Arabic Literacy Strategy would be in the form of technical assistance, including through the preparation of a situational analysis to underpin the strategy, provision of expert support to the drafting of sections of the strategy based on the evidence of teaching and learning Arabic from WB&G as well as across the MENA region, and assistance in the facilitation of wide and in-depth stakeholder consultations on the strategy.

Subcomponent 1.2 Improvements to Early Grade Arabic Language Arts Instruction

51. This subcomponent builds on previous early grade reading teaching and learning initiatives, linking to the Arabic Literacy Strategy, to further develop and scale up a high-quality, evidence-based literacy program for Arabic language arts in Grades 1–4 (including reading, writing, speaking, and listening), with associated in-service training, teacher guidance materials, and learning resources.

52. Activities under this subcomponent in Phase 1 would include technical assistance to develop Arabic language arts standards and benchmark and, based on those, review and revise existing teaching and learning materials, and develop new ones, as deemed necessary. The review would include an analysis of the availability of age-appropriate and engaging books in schools, including in school libraries and mobile libraries, with an estimate of costs for any further requirements for mobile libraries to bridge the gap. All newly developed materials would be digitized and housed on a platform that is developed and/or strengthened as part of the program.⁴⁸ Also aligned with the standards, in-service teacher training modules and teacher guides would be developed; this would be a short version of the more in-depth module for preservice teacher training developed under subcomponent 1.3.

53. A short “ready-to-read” screening check will be developed for teachers to use in early grades classrooms, allowing for quick and early identification of students whose progress is below expectations so that additional supports can be put in place.⁴⁹ While the short “ready-to-read” screening check would be low stakes and conducted in a regular



classroom environment, the information could be shared with parents and aggregated to provide district offices and central MOE with data on areas and schools that may require further support, as well as to monitor national goals. In addition, proformas for student reading profiles, relevant to each of the lower primary grades, would be developed to help teachers monitor their students' progress in developing literacy skills with guidance for teachers to develop pathways for students based on their latest profile, whether that involves additional practice and support or enrichment materials. Technical support would be provided to assist the MOE in revising its criteria by which teachers are evaluated to align with the new expectations.

54. The reading and other teaching and learning materials produced under this subcomponent and in other phases will, where possible, help to develop students' and teachers' knowledge, skills, values, and attitudes related to sustainable environmental and social outcomes, including (but not limited to) climate change mitigation and adaptation topics. Through linkages with the MOE's work on the LSCE initiative, skills for citizenship such as respect for diversity, empathy, and participation would be incorporated. To address immediate needs stemming from the COVID-19 pandemic and associated missed learning, this subcomponent would prioritize elements that can most quickly be rolled out to support teachers in meeting children's immediate needs. In particular, classrooms will have a wide range of levels of children's reading skills (most likely for years to come after schools initially closed in 2020) and socioemotional needs (see component 1.4) and specific guidance and materials for teachers on these aspects will be a necessary immediate focus.

Subcomponent 1.3 Further Development of Preservice Teacher Education

55. To build a pipeline of well-prepared new teachers entering the system, with up-to-date knowledge and skills for teaching Grades 1–4 (particularly foundational literacy skills) and for promoting positive classroom climates for learning and wellbeing, this subcomponent will further strengthen preservice teacher education. This upgrading of preservice teacher education would align with the strategy and standards for Arabic language arts and build on the TEIP training of Grades 1–4 preservice teachers and the professional index of teacher competencies.

56. In Phase 1 of the program, this subcomponent would provide expert assistance in identifying elements of an effective teacher education program for prospective Arabic language arts teachers of the early grades; facilitate collaboration with exemplary providers (from across the region) in Arabic pedagogy training and support the building of a network of university faculties of education. A module would be developed on Arabic language teaching, with a set of model videos, for inclusion in preservice teacher education, with a shorter version prepared for use with in-service teachers.

57. In addition, this subcomponent would review and refine or newly develop modules for preservice teacher education programs to cover pedagogical skills for promoting positive classroom climates conducive to student learning and wellbeing, linking with the LSCE initiative, and with the in-service teacher training described under subcomponent 1.4.

Subcomponent 1.4 Promotion of Positive School and Classroom Climates Conducive to Learning and Wellbeing

58. Activities under this subcomponent are aimed to improve the quality of school and classroom climates so that students' learning experiences can be optimized, and their holistic development and wellbeing nurtured. "School climate" can be defined, based on organizational psychology, as the qualities of the school setting that are experienced by students, teachers, and administrators. In turn, "classroom climate" refers to similar characteristics of the setting but more localized to the specific class.⁵⁰ This subcomponent will support the strengthening of two key aspects for



positive school and classroom climates — the quality of engagements (interactions and relationships, sense of belonging, cultural awareness, leadership), and the academic environment (quality of instruction, expectations, teaching practices).

59. In WB&G, new job descriptions were issued for school principals⁵¹, with the first responsibility being to create a school environment conducive to learning. This is in line with research that shows that a whole-school approach to well-being is effective, addressing the needs of all school community members including students, teachers, non-teaching staff, and the wider school community. This subcomponent will provide in-service training and guidance materials for principals of lower primary schools to better meet this responsibility. In addition, the training would include topics related to environmental impacts of the school, promoting environmentally sustainable practices among teachers and students, and protocols to follow in the event of natural disasters. Through linkages with the LCSE initiative, this subcomponent would increase school principals' capacity to develop important life and citizenship skills among students including respect for diversity, empathy, and participation. Aspects of school and classroom climates that could address boys' underperformance would be explored.

60. Enhancing student wellbeing is a high priority of the MOE and significant advancements have been made in recent years to build a more welcoming and engaging school environment through the provision of extracurricular activities, with schools and teachers encouraged to devise activities in cooperation with students. The MOE is interested in identifying the best of these and scaling them up for the benefit of other schools and students. This subcomponent will conduct a review of extracurricular activities designed to promote student wellbeing across schools with recommendations on the sharing and scaling-up of good practice. In addition, support will be given to a competition for schools to be recognized for, and share, their innovative efforts in providing extracurricular activities, which would encourage other schools to implement similar activities. A category of the competition could recognize activities that promote environmental sustainability and resilience to climate change shocks.

61. Within the classroom, teachers also need support in building their skills to create positive classroom environments that meet the learning and wellbeing needs of their students. Under subcomponent 1.3, support would be given to university faculties of education to develop their preservice teacher education programs to include content on promoting positive classroom environments for learning and student wellbeing for the preparation of all teachers. This content would ensure that all new teachers have a solid understanding of child development research and learning theory, and a working knowledge of associated effective teaching practices. Under this subcomponent, a short version of this content would be packaged in a "classroom climates for learning and wellbeing" module and rolled out for in-service teacher training targeting Grades 1-4.

Component 2: Harnessing Technology to Improve STEM Learning and Better Equip Students for the Labor Market
(US\$7 million, Phase 1)

62. Under Phase 1, this component aims to improve STEM teaching and learning in upper primary (Grades 5-6) and lay the foundations for an effective career guidance system that focuses, as an initial step, on students in Grades 9-12. Three subcomponents with associated activities will be undertaken to (i) strengthen and operationalize MOE's STEM Framework, (ii) improve upper primary (Grades 5 to 6) students' mathematics, science and digital skills, with a particular emphasis on addressing missed learning due to the COVID-19 pandemic and recent Gaza conflict, and (iii) lay the foundations for an effective career guidance system that helps secondary students make informed career choices and be better equipped to pursue them.



Subcomponent 2.1 Strengthening and Operationalization of the MOE’s STEM Education Framework

63. The MOE has developed a pioneering STEM Education Framework to strengthen teaching and learning of STEM inside and outside of the classroom, with the ultimate aim of ensuring a sufficient and high-quality supply of STEM skills to fulfill the needs of the future workforce, and to produce the researchers and innovators who can help solve some of the intractable challenges that WB&G faces. This subcomponent will provide technical assistance to strengthen the STEM Education Framework by expanding its coverage from the early grades up to secondary and tertiary education, strengthening its connection with the current and projected labor market needs over the next decade, and embedding mechanisms to ensure it remains a “live” framework. It will also support the development of an accompanying Action Plan, in coordination with the private sector, that articulates the roles of different actors, provides costing for the envisioned activities and their scale-up, and includes monitoring and evaluation mechanisms to track progress and lessons learned. A study tour to a relevant country(s) that has set long-term STEM goals and plans and has been able to meet them in a sustainable manner, may also be organized, as deemed necessary, to help inform the strengthening of WB&G’s STEM Framework. Careful consideration will be paid to the delegation participating in the study tour to ensure a balanced representation of high-level STEM policymakers, technical MOE staff, relevant university representatives, supervisors, principals and teachers.

Subcomponent 2.2 Development and Rollout of a Package of STEM interventions

64. This subcomponent will support the implementation of select classroom-level interventions proposed under the MOE’s STEM Framework, for which available research evidence suggests a potential for high-impact in learning outcomes. These select interventions are envisioned in terms of a package of aligned and interrelated interventions and resources that support an evidence-based approach to STEM teaching and learning in upper primary classrooms (Grades 5 and 6). This package will include the following elements.

- The first element of this package will be teacher training, both preservice and in-service. Based on a review of existing pre-service training curricula for upper primary teachers, a specific module(s) will be developed/strengthened and embedded into university curricula to improve STEM subject knowledge of teachers, and to introduce/strengthen the use of evidence-based pedagogies (i.e., project-based, hands-on, integrative, collaborative learning and the use of formative assessment) that are conducive to high-quality STEM learning. Similarly, an in-service training module(s) will be developed and rolled-out to Grade 5 and Grade 6 teachers. This training would be a short version of the more in-depth pre-service module(s). Trainings will also include content on sustainability and environmental education to enhance teachers’ ability to cover climate change-related topics in their instruction. Building on the successful implementation arrangements of the previously implemented Teacher Education Improvement Project (TEIP), both preservice and in-service module(s) will be developed through a partnership between a leading international university in STEM, and key local universities (5 in West Bank and 1 or 2 in Gaza) that offer programs in Science Education and Mathematic Education programs for upper primary grades. The selection of these universities will consider the geographic distribution, previous experience gained through TEIP, and the availability of both Mathematics and Science teacher education programs. The National Institute of Educational Training (NIET) at the MOE will be actively involved in both the development and delivery of the module(s), to ensure that after Phase 1 of the program, the in-service module is sustained as part of NIET’s own training program. The implementation arrangements will be coordinated with the Directorate General of Supervision and Qualification and its corresponding District Supervisors to ensure strong ownership from supervisors too.
- The second element of the package will be a STEM teacher guide. Informed by a review of the Grades 5 and 6 STEM curriculum and teaching practices, an accompanying teacher guide would be developed and distributed



to provide structured guidance for teachers to implement project-based STEM activities in the classroom, promoting integrative and collaborative learning, and leveraging formative assessments to better tailor instruction. This guide would be strongly aligned with the training module(s), and training on the use of this module will be provided as part of the in-service training module. Technical support to assist the MOE in revising its criteria by which teachers are evaluated so teachers are rewarded for embedding the new STEM teaching methods and activities in their instruction will also be provided.

- The third element of the package will be STEM resources and equipment. Relevant Grades 5 and 6 classroom resources and lab and IT equipment will be procured and distributed to enable the adequate implementation of the STEM guide. These resources and equipment will be identified based on a third-party inventory and gap analysis of existing resources and equipment in Grades 5 and 6 classrooms and corresponding schools and would directly correspond to the activities proposed under the STEM guide. Identified needs would be prioritized in terms of the timing for their procurement across the phases of SERATAC and tiered in terms of the frequency of their use (i.e., Tier 1 resources and equipment that require periodic use may need to be available in all schools, whereas Tier 2 resources and equipment required for less frequent activities can be made available for a cluster of schools, for example through a mobile lab or in a central location). To the extent feasible and applicable, classroom resources and lab and IT equipment to be procured under this subcomponent will be energy efficient and/or recyclable to contribute to climate change mitigation.

65. In addition, this subcomponent will also support the design and implementation of an adaptive learning program in Grade 5 classrooms.⁵² This program will have a twofold objective. First, it will aim to provide effective mathematics remediation to students in Grade 5—a critical transition grade from lower primary to upper primary education—in response to missed learning due to COVID-19 and the recent Gaza conflict. Second, to respond to the heterogeneity in students’ learning levels exacerbated by COVID-19, this program will also support teachers in their ability to provide differentiated instruction—the ability to recognize where students are in their learning, identify what they need to continue learning at their level, and provide such tailored instruction to meet all learners’ needs.

66. For this, an in-service training module on differentiated learning in math will be developed and rolled-out to Grade 5 math teachers. The module will be co-developed by a leading international university/firm with strong experience in designing and implementing differentiated learning programs, the MOE’s Curriculum Center—to ensure that the subject content is aligned with the Palestinian Grade 5 curriculum—and the MOE’s NIET and Supervision Department—who will jointly be responsible for the training of teachers. The development process of this module will place a strong emphasis on creating the capacity in the MOE’s Curriculum Center to develop further differentiated learning modules for other subjects and grades in the future. Accompanying the training module, a high-tech and a low-tech adaptive learning package will be developed to implement differentiated instruction in mathematics to Grade 5 students. The third-party inventory and gap analysis conducted for the development of the package of STEM interventions would inform the specifications of the high-tech package and determine in which schools it would be implemented. That is, in schools with adequate digital infrastructure, the high-tech package will leverage relevant innovations in Artificial Intelligence (AI) and machine learning to deliver content that is tailored to the learning needs of individual students, thus personalizing remedial instruction. In schools where the digital infrastructure is less developed, the low-tech package will be rolled out. The development of both the low- and high-tech packages will benefit from progress made under the Digital West Bank & Gaza Project (P174355) in enhancing the digital infrastructure and increasing access to high-speed broadband services across Palestinian governorates.



Subcomponent 2.3 Development of an Effective Career Guidance System for all Students

67. This subcomponent will support the development of an effective career guidance system that aims to: (i) help students in identifying, exploring and nurturing their academic talents and interests (with a particular focus on STEM and entrepreneurship, and a special emphasis on overcoming STEM stereotypes along gender lines); and (ii) provide students and their families with timely and personalized information and guidance to make key decisions (i.e., the decision to pursue the TVET or the Academic track in Grade 10, the choice between the Humanities and STEM streams in Grade 11, the selection of a tertiary education major in Grade 12, and the challenging process of entry into the labor market). An effective career guidance system is characterized by three central elements: (i) professional career guidance staff that provide personalized guidance to students at key moments in their educational trajectory; (ii) relevant and timely education and labor market information that is made available to stakeholders; and (iii) meaningful partnership that open opportunities for students to the “world of work”.⁵³

68. The envisaged Palestinian career guidance system will be unfolded gradually through the three phases of SERATAC, with the aim of covering all Palestinian students from upper primary grades—where academic interests begin to take shape—to entry into the labor market. Under Phase 1, the subcomponent will specifically focus on strengthening the career guidance system for Grades 9-12—where students have to make three of the four aforementioned decisions.

69. To this end, the subcomponent will support the professionalization of the career guidance staff (school counsellors, ‘career leaders’ in schools without counsellors, and district coordinators). This will include technical assistance to strengthen the job description of career guidance staff and corresponding criteria by which career guidance staff are evaluated. The strengthened description and evaluation criteria would benefit from international research evidence and include the scope and intensity of career guidance expected by school grade, with a focus on Grades 9-12, to help prioritize staff efforts and time. It will also include in-service training to professionalize career guidance staff and better equip them to fulfill their revised job description, with a particular focus on STEM and entrepreneurship, and a special emphasis on overcoming STEM stereotypes along gender lines. An accompanying Online Resource Bank will also be developed, digitizing existing relevant resources and materials for Grades 9-12, and developing new ones as appropriate. These activities could be conducted through a partnership with a renowned international institution with established experience in professionalizing career guidance counselors. Such an arrangement could allow for networking opportunities, in-person internship and specialized training opportunities for selected staff, as well as virtual mobility of practitioners between WB&G and the selected institution’s host country, including virtual mentorships for newly appointed staff. To the extent appropriate, as well as aligned with labor market needs in WB&G, career guidance staff will be trained on opportunities to promote careers in industries leading the green growth agenda, climate-resilient pathways that combine both mitigation and adaptation, and transition towards a sustainable, digital economy.

70. Second, the subcomponent will also support the provision of relevant and timely education and labor market information to career guidance staff, students and their families, and encourage the take-up of such information, through the development of a one-stop shop online information portal and associated mobile application, that provides relevant information (e.g., employment and other relevant outcomes by academic and TVET track, academic stream, and field of tertiary education) and meaningful tools (e.g., self-assessments) tailored to students, parents and career guidance staff (for example, the aforementioned Online Resource Bank would be a resource tailored and destined for career guidance staff). This portal will pull together relevant information from two main sources. First, it will rely on existing local databases, information systems, and periodical studies on secondary education, tertiary education and the labor market. These include, but are not limited to, the MOE and MOHESR statistical yearbooks, the Labor Market



Information System (LMIS), the Palestinian Central Bureau of Statistics' (PCBS) periodic reports on employment and wages, and the Palestine Economic Research Institute's forecasts on the different economic sectors. In particular, the Graduate Tracking System (GTS) established under the Education-to-Work Transition Project (E2WTP)⁵⁴, will provide granular data on employability and labor market outcomes at the tertiary education level. Second, the portal will leverage relevant open-source content and tools (e.g., self-assessment questionnaires, interactive modeling for different scenarios based on various assumptions, etc.) and make them available in an organized and meaningful way to the different stakeholders. The portal could be managed by the MOE (building on the MOE's existing *e-School* platform) or be hosted by an educational institution designated by the MOE. A content advisory committee will be formed to ensure the quality, relevance and take-up of the information in the portal.

71. Third, the subcomponent will aim to develop and strengthen partnerships at the local and international levels to create relevant opportunities for Grade 9-12 students to explore niche areas and learn about and explore the "world of work". At the local level, this may include support for the creation of "twinning arrangements" between tertiary education institutions (universities and technical colleges) and secondary schools in their catchment areas, to promote interinstitutional collaboration in the form of, for example, campus tours, science fairs, university admission fairs, etc. The development of partnerships between district-level coordinators and local businesses could also be supported, to create opportunities for secondary schools in the form of, for example, field visits to relevant businesses or factories, career weeks with local guest speakers, etc. At the international level, participation in international math and science Olympiads, and other relevant international fora and competitions, may also be supported.

Component 3. Strengthening the Student Learning Assessment System (US\$6 million, Phase 1)

72. Under Phase 1, this component aims to strengthen the national student assessment system in primary and secondary education and collect high-quality learning data to inform education policies and promote continuous school improvement and accountability. Three subcomponents with associated performance-based conditions (PBCs) have been designed to (i) strengthen the policy framework and 5th Grade NLSA, (ii) support the Tawjihi reform and increase secondary students' career pathways, and (iii) promote participation in international assessments.

73. The financing provided under this component will be fully results-based. PBCs and their associated resource allocations and verification protocols are presented under Section VII Results Framework and Monitoring. Types of eligible expenditures for reimbursement are included in Annex 2.

Subcomponent 3.1 Strengthening the National Assessment and Policy Framework

74. Building on existing strategies that the Ministry has already developed, this subcomponent would support the development of a strengthened policy framework to consolidate the purpose, objectives, and reform plans for each type of assessment (including classroom assessments, school-based assessments, socioemotional skills assessment⁵⁵, the Tawjihi exam, NLSAs, and ILSAs) in a single reference document. The framework is meant to ensure coherence across the system such that different assessment activities are fully aligned with national curriculum standards and designed to effectively improve teaching and learning. The use of student assessment data will be at the heart of the policy framework. It will lay out a detailed protocol specifying how the student assessment data will be used at the central, district, school, and classroom level to inform strategic planning, policy decisions, the design and targeting of teacher professional development programs, teaching strategies, and other relevant aspects of the education system. The PBC associated with this activity is PBC 1a: National Policy Framework on Student Assessment consolidated and officially adopted by the Ministry of Education.



75. To create a path toward generating the first-ever Learning Poverty estimate for WB&G, this subcomponent will further support the strengthening of the Arabic NLSA in Grade 5. The objective is to improve the NLSA methodology and technical report to rigorously assess Arabic reading comprehension, ensure temporal comparability of results, and facilitate the use of results by policymakers and other relevant stakeholders. The PBC associated with this activity is PBC 1b: Technical design of the Palestinian National Large-Scale Assessment in Arabic Grade 5 strengthened.

Subcomponent 3.2 Supporting the Reform of the Tawjihi Exam

76. This subcomponent will support the Ministry's plan to gradually reform the Tawjihi exam. The reform has two main objectives: (1) addressing the high-stakes nature of the exam, and (2) improving the quality of the exam to broaden the skills assessed by the Tawjihi to include more higher-order thinking skills such as application and reasoning, and fewer recall and knowledge-based questions.

77. In support of the first objective, a critical step will be to ensure that passing the Tawjihi is not required to obtain a secondary school certification. As of now, students who fail the Tawjihi (about 23,000 students each year) and those who decide not to sit for it are left without any document proving that they have completed 12 years of education. To create new career pathways for all students who successfully completed Grade 12, this subcomponent will support the creation of a general secondary school certificate. This certificate will serve as a signal to employers, who currently cannot differentiate between applicants who passed Grade 12 (but did not pass the Tawjihi), and those who did not complete secondary education. The PBC associated with this activity is PBC 2b: First cohort of Grade 12 students has received the general secondary school certificate.

78. In support of the second objective, an analysis of the current Tawjihi exam will be conducted. Among other aspects, this will include a review of the role, design and outcomes of the Tawjihi, including a comparison with relevant regional and international benchmarks. Finally, the analysis will present options for improving the Tawjihi design, discussing both the benefits and challenges of suggested approaches. The results of this review will be widely disseminated. The PBC associated with this activity is PBC 2a: Review of the role, design and outcomes of the Tawjihi and options for improvement completed and results publicly disseminated.

79. Given the significant shift in behaviors and mindsets that will be required for the Tawjihi reform to succeed, this subcomponent will place a strong emphasis on a proactive communications strategy and extensive stakeholder consultations with students, parents, teachers, principals, universities, and other relevant stakeholders. A stakeholder engagement plan will provide a detailed roadmap laying out consultation mechanisms tailored to the needs of different stakeholders, as well as arrangements to ensure that their inputs feed into the reform process and results are reported back to stakeholders. The implementation of consultation events will be monitored under the program's results framework.

80. The activities planned for Phase 1 will lay a strong foundation for subsequent reform steps in Phases 2 and 3. The high-stakes nature of the Tawjihi may be further addressed by potentially revising the admissions process for tertiary education and expanding the information available on secondary school graduates such that universities and technical colleges may base their decisions on a broader view of students' accomplishments. Regarding the quality of the exam, the review produced in Phase 1 may provide the basis for revising the Tawjihi test items and developing targeted professional development programs for Tawjihi item writers. Continuous stakeholder consultations will remain at the core of this subcomponent throughout all phases of SERATAC.



Subcomponent 3.3 Expanding the Availability and Use of High-Quality Learning Data from International Assessments

79. In support of the MOEs strong commitment to expand the evidence base on learning in WB&G, this subcomponent will ensure the availability of high-quality learning data and effective use of the results to inform education policies and promote continuous school improvement. To this end, the subcomponent will support the participation of WB&G in several cycles of international student assessments, including PISA and TIMSS. It will further promote the public reporting of results to strengthen transparency and accountability in the Palestinian education system. A comprehensive dissemination plan on ILSA results will be developed by the MOE and its implementation will be tracked through the program results framework. Anonymized microdata will be made available for research purposes to identify the key drivers of learning outcomes in WB&G at the subnational level. To monitor and incentivize the use of large-scale assessment data for strategic decision and planning at the sector level, the program will measure the awareness of ILSA results among senior MOE staff. In addition, the program will track the use of ILSA data to inform policy priorities included in the MOE’s periodic updates of the Education Sector Plan.

80. The PBCs associated with this subcomponent are:

- PBC 3a: Legal Agreement signed with the OECD to participate in PISA 2025
- PBC 3b: PISA 2022 results for the West Bank and Gaza published in the OECD’s official PISA 2022 report and anonymized microdata made available for research purposes through a globally accessible online database
- PBC 3c: Legal Agreement signed with the OECD to participate in PISA 2028
- PBC 4a: Legal agreement signed with the IEA to participate in the mathematics and science assessments in TIMSS 2027 for Grade 4 and Grade 8
- PBC 4b: TIMSS 2023 results for the West Bank and Gaza published in the IEA’s official TIMSS 2023 report and anonymized microdata made available for research purposes through a globally accessible online database

81. **Role of Component 3 in informing SERATAC’s overall learning agenda.** The outcomes from international assessments will play a pivotal role in assessing progress in learning outcomes under SERATAC and informing the design of interventions to be financed under Phases 2 and 3. Specifically, the results from PISA 2022 and PISA 2028 will provide baseline and endline data on key learning outcomes for the Program. Similarly, the results from TIMSS 2023 and TIMSS 2027 will shed light on the potential system-level impact of STEM interventions supported under SERATAC.

Component 4: Project management and implementation support (US\$1 million, Phase 1)

82. This component will support the MOE’s Project Coordination Unit (PCU) in managing and overseeing project activities. The PCU at the MOE is already operational and is responsible for the ongoing “Improving Early Childhood Development in West Bank & Gaza” project.⁵⁶ As such, this component will finance: (a) additional staffing capacity that may be needed, including a technical coordinator for each of the three components of the project; (b) costs associated with the data collection, aggregation and periodic reporting of the project’s implementation progress; (c) communication and dissemination activities to ensure adequate dialogue and knowledge-sharing within the sector and coordination with other line ministries; (d) costs incurred to monitor and ensure compliance with the Environmental and Social Commitment Plan (ESCP) for this project; and the overall project operating and audit costs. In addition, the component will finance data collection activities required under the program’s learning agenda. Specifically, this may include: (i) the hiring of an independent consultant for the process evaluation of implementation arrangements under



Components 1 and 2, and (ii) the hiring of an independent data collection firm to conduct classroom observations in a sample of primary and lower secondary classrooms across WB&G.

C. Project Beneficiaries

83. Table 3 shows the project beneficiaries and their estimated numbers for Phase 1 of SERATAC.

Table 3. Expected number of beneficiaries of SERATAC (Phase 1)

Expected beneficiaries	Estimated number
Component 1. Building Strong Foundations for Learning and Wellbeing	
Students in Grades 1-4 benefiting from improved Arabic language arts instruction and positive classroom and school climates	42,000
Teachers of lower primary receiving in-service training on newly developed module(s) in Arabic language arts instruction, and the “classroom climates for learning and wellbeing” module	2,000
Supervisors of lower primary receiving training on newly developed module(s) on effective ways to teach Arabic language arts	100
Principals in lower primary schools receiving in-service training and benefiting from newly developed guidance material on wellbeing	800
Preservice teachers of lower primary benefiting from strengthened preservice teacher education focused on Arabic language arts instruction and effective teaching practices that promote positive classroom environments for learning and student wellbeing	600
National Institute for Educational Training (NIET) staff strengthening their capacity to provide in-service training on Arabic language instruction	20
Staff at local universities receiving technical support to develop and provide preservice training in Arabic language arts instructions and include content on promoting positive classroom environments for learning and student wellbeing	30
Component 2. Harnessing technology to improve STEM learning, and better equip students for the labor market	
Students in Grade 5 benefiting from improved STEM classroom activities and related classroom resources and lab equipment, and the adaptive learning program in mathematics	25,000
Students in Grade 6 benefiting from improved STEM classroom activities and related classroom resources and lab equipment	25,000
Teachers of Grade 5 receiving training on the newly developed in-service training STEM module(s) and the use of an accompanying teacher guide, and the newly developed and rolled out module on differentiated learning in math	1,500
Teachers of Grade 6 receiving training on the newly developed in-service training STEM module(s) and the use of an accompanying teacher guide	1,500
Supervisors of upper primary STEM subjects receiving training on newly developed in-service training STEM module(s)	100
National Institute for Educational Training (NIET) staff receiving capacity building to provide high-quality in-service training in STEM	20
MOE Curriculum Center staff benefiting from capacity building activities focused on differentiated learning in mathematics	5
MOE staff benefiting from the STEM study tour to a relevant country(s) that has set long-term STEM goals and plans , and has been able to meet them in a sustainable manner	15
Students in Grades 9-12 benefiting from newly developed career guidance approaches	40,000
Career guidance staff benefiting from professionalization and capacity building activities to fulfill their revised job description, with a particular focus on STEM and entrepreneurship, and overcoming STEM gender stereotypes	400



Component 3. Strengthening the Student Learning Assessment System

First Cohort of Tawjihi Grade 12 students benefitting from the creation of a general secondary school certificate 70,600

D. Rationale for Bank Involvement and Role of Partners

84. **Rationale for Bank Involvement.** There is a strong rationale for Bank involvement under the MPA. The Bank has a longstanding engagement in the education sector in the WB&G. Its ongoing operations currently support the two bookends of the Palestinian education system. Through its multisectoral operation in ECD, the Bank is supporting the PA in improving access to quality early childhood education for children in the early years (4-6 years of age). In turn, the Education-to-Work Transition Project (E2TWP) is investing in increasing employability of university graduates (over 19 years of age). This MPA builds on these engagements and proposes to direct investments to enhance quality of teaching and learning in primary and secondary education (6-18 year-old bracket), providing a strong and strategic roadmap for improving learning outcomes for all students as they progress through the education system.

85. Moreover, the WB’s involvement (a) provides stability, financial continuity, and a unique opportunity to help shape and implement the MOE’s long-term vision for the education system; and (b) strengthens the harmonization of donors and development partners’ efforts around this long-term agenda. The Bank has a proven track record in demonstrating leadership and harmonizing efforts in the education sector. Consequently, the Bank’s continuous commitment could coalesce donor engagement around the MPA and potentially mobilize additional funding from partners throughout the program.

86. Finally, the Bank will bring in strong technical expertise, building on its regional and global experience in supporting strategic, long-term reforms in the education sector. Specifically, the Bank has produced rich analytical work on addressing Learning Poverty in MENA countries, with a focus on the particularities of effectively promoting Arabic literacy. As part of its strong operational response to COVID-19, the Bank will further contribute an extensive knowledge base on interventions that have proven effective in other countries to mitigate learning losses and strengthen education systems’ resilience to future shocks.

87. **Role of Partners.** Given the political and economic context of WB&G, the Palestinian education sector is heavily dependent on donor funding. While there have been many successful initiatives in the sector, often times supported by development partners, these have often been limited to small pilots or interventions, that in their majority have not been scaled-up or sustained. A key objective of this MPA is to support the harmonization of donors’ efforts, with the aim of scaling-up successful initiatives and pilots and embedding them in the system. As such, the MPA design has been developed in close coordination with development partners and donors, particularly by leveraging the Education Sector Working Group (ESWG)—the primary platform for donor coordination—and its seven thematic subgroups⁵⁷, of which the Bank is an active member. Key partner initiatives identified through the Bank’s engagement in the ESWG and bilateral dialogue are summarized in table 4 below.

Table 4: Key Development Partners and Areas of Collaboration under the MPA

German Society for International Development (GIZ)	<ul style="list-style-type: none"> Provides technical assistance to increase students’ interest and exposure to TVET. This work will be an important element of the career guidance system proposed under subcomponent 2.3 of the MPA.
International Education Association (IEA)	<ul style="list-style-type: none"> Provides high-level technical assistance on the administration and data analysis of TIMSS 2023
Joint Financing Partners (JFPs)	<ul style="list-style-type: none"> Provide budget support to the MOE to finance the implementation of the ESP through pooling funds into the Joint Financing Arrangement (JFA), with emphasis on infrastructure.
Japan International Cooperation Agency (JICA)	<ul style="list-style-type: none"> Provides technical assistance to improve the quality of textbooks and other relevant teaching and learning materials for Mathematics and Science. The Bank will work closely with JICA to build on and scale-up this work under Component 2.
Organization for Economic Co-Operation and Development (OECD)	<ul style="list-style-type: none"> Provides high-level technical assistance on the administration and data analysis of PISA 2022
United Nations Educational, Scientific and Cultural Organization (UNESCO)	<ul style="list-style-type: none"> Supports the development of digital skills and distance learning. Supports the MOE’s Center for Education Research and Development (CERD) in assessing learning losses from COVID-19 and the recent Gaza conflict. Findings from this assessment will be critical to inform the development of teaching and learning materials across Component 1 and 2 in Phase 1 that aim to respond to medium-term learning recovery needs.
United Nations Children’s Fund (UNICEF)	<ul style="list-style-type: none"> Promotes Life Skills and Citizenship Education (LSCE) in schools in pre-primary and basic education schools. Provides technical assistance to provide remedial learning and mental and psychosocial support post the Gaza conflict and amid COVID-19. The MPA will build on and scale-up this work under the wellbeing activities proposed under subcomponent 1.4.
US Agency for International Development (USAID)	<ul style="list-style-type: none"> Funded the Early Grade Reading Project, which focused on changing classroom practices for reading and writing instruction in kindergarten to grade 2 through (a) evidence-based standards and curriculum revisions, (b) instructional improvements, and (c) parental engagement activities. The MPA aims to scale-up and embedded this activity into the education system, under Component 1.

E. Lessons Learned and Reflected in Program Design

88. The design of the MPA, and specifically the design of its Phase 1, builds on the strong analytical base, operational knowledge and experience of previous and ongoing Bank projects. The following are some of the key lessons learnt that have informed the design of each of the MPA’s proposed components:

89. Component 1. Building Strong Foundations for Learning and Wellbeing: This component operationalizes the technical roadmap laid out in the 2021 World Bank Report “Advancing Arabic Teaching and Learning: A Path to Reducing Learning Poverty in MENA”, and proposes to use the successful implementation arrangements established under the Teacher Education Improvement Project (P152914), to develop in-house capacity and a strong ownership for the design and roll-out of pre-service and in-service teacher training to improve Arabic language arts instruction. Furthermore, the lessons learned through the consultative process for the development of early childhood development standards under the Improving Early Childhood Development in the WB&G (P168295), have provided valuable insights for the proposed development of Arabic language standards for lower primary education. Finally, learning from the Bank’s development of the Learning Poverty indicator and associated research on the factors affecting learning poverty are reflected in the activities of this component. This includes an understanding of the need for the following in promoting literacy for all children⁵⁸:



- (a) Assuring political and technical commitment to making all children literate
- (b) Ensuring adequate amounts of effective instruction by supported teachers
- (c) Providing quality, age-appropriate books and texts to children
- (d) Teaching children first in the language they speak and understand best
- (e) Fostering children’s language abilities and love of books and reading

90. Component 2. Harnessing technology to improve STEM learning, and better equip students to make career choices: The identified skill gaps and digital infrastructure assessment conducted under the “Digital Economy Assessment for the WB&G”, has informed the technical design of this component. Furthermore, the component will build on the lessons learned during the development of the Graduate Tracking System (GTS) under the Education-to-Work-Transition Project (E2WTP) (P129861) to guide the design of the career guidance resources being proposed. The implementation arrangements established under the Teacher Education Improvement Project (P152914) will, again, be leveraged and be built upon for the design and roll-out of the pre-service and in-service teacher training to improve the quality of STEM instruction. Finally, the Digital West Bank & Gaza Project (P174355) and its progress towards enhancing the digital infrastructure and increasing access to high-speed broadband services across Palestinian governorates, has informed the design of the low- and high-tech packages for the adaptive learning program proposed under this component.

91. Component 3. Strengthening the Student Learning Assessment System: The design of this component has benefited from the rich analytical base produced under the Education Sector Programmatic ASA (P175094), where in-depth analyses and policy dialogue were carried out on the Tawjihi, the National Large-Scale Assessments, and International Large-Scale Assessments. This component also builds on the strong analytical base and policy recommendations developed by the Education Global Practice on measuring Learning Poverty and strengthening countries’ student assessment systems. In addition, lessons learned from the reform of the high-stakes ‘Thanaweya Amma’ exam under the Supporting Egypt Education Reform Project (P157809) have been reflected in the program design, including the importance of extensive stakeholder consultations, the production of rigorous evidence on the exam design and outcomes, and making the evidence widely available to stimulate the public debate.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

92. **The MOE will have the primary responsibility for overseeing the overall implementation of SERATAC and ensuring compliance with the Bank’s procedures and guidelines.** The PCU currently managing the Bank’s education projects will be entrusted with managing program activities. This PCU has a track record of over a decade of satisfactory performance, staffing and capacity. Specifically, the PCU will be responsible for coordinating implementation, ensuring compliance with fiduciary and environmental and social (ES) Bank requirements, ensuring the overall technical coherence of program activities across the MOE’s departments, and liaising with respective district offices and municipalities. The MOE, through the PCU, will report regularly to the Bank on the program’s implementation progress, results monitoring, proposed annual work programming, budgeting, financial management and procurement, and ES progress. See Annex 1 for a detailed description of the program’s implementation arrangements.



B. Results Monitoring and Evaluation Arrangements

93. Program monitoring and evaluation will be the responsibility of the MOE. The MOE will prepare and submit to the Bank progress reports—on a semiannual basis that include (inter alia) information on the program’s results framework (RF) indicators, and annual work plans to achieve agreed upon targets and results. The format of the report, and the requirements for periodic reporting and M&E arrangement throughout the program, will be detailed in the POM.

94. Data on the progress towards achieving the PrDO, PrDO-level indicators, Phase 1 DO, DO-level indicators, and intermediate indicators will be collected on a routine basis through the existing information system at the Directorate General of Planning and Development at the MOE. Specifically, the Statistics Division and the Monitoring and Evaluation Division, within the Directorate General of Planning and Development, in full coordination with the PCU, will be responsible for compiling data for all relevant indicators throughout the life of the program. The Center for Education and Research Development (CERD) will conduct any additional data collection required to monitor and report on the RF, as needed. Any additional data needed to support the RF updates will be collected and financed by the program to supplement data from the MOE.

95. Annual reviews will serve as another mechanism to monitor the implementation of the program in a participatory manner. These reviews will be led by the MOE, with key stakeholders including participating international and local universities and consultants, local education NGOs, donors, and civil society. Annual reviews will provide an opportunity to review progress and identify issues that need to be addressed to improve the program’s performance. They will also provide a mechanism for stakeholders to develop a common understanding of sector issues and priorities to be followed up through action plans and/or through policy dialogue. Ongoing process documentation and process evaluations will be conducted at mid-term to understand implementation challenges and to inform any mid-term corrections. The findings will feed into a mid-term review of the program.

96. Finally, outcomes from ILSAs will also contribute to assessing progress under the program, particularly in relation to student learning outcomes. This data, together with data collected under the learning agenda of the program, will provide critical insights to inform the design of subsequent phases under the program.

C. Sustainability

Several factors underpin sustainability:

97. There is strong political and financial commitment both by the MOE and the World Bank for this agenda. The PA in its National Development Plan (2021-2023) and the MOE in its Education Sector Strategic Plan and Updated 2020 Strategy place a strong emphasis on “developing the education evaluation system, developing science, technology, engineering and mathematics education, improve higher order thinking and use of technology to shift from teaching to learning.” With respect to the Bank, the commitment is clear; the Bank is committed to undertake multiple interventions to promote better human development outcomes with a long-term perspective. This program, which has been included in its Assistance Strategy for the WB&G for the FY22-25 period, is an example of such commitment.

98. The use of the MPA allows the MOE and the Bank to develop a longer-term vision for achieving development outcomes. The phased approach allows for iterative assessment and scaling system wide while allowing a long-term time horizon to address financing challenges and the introduction of key reforms. The long-term approach also allows



for a programmatic design that can be scaled over time through other national and international financing sources. The design of the program ensures producing results in the short term with a focused effort to transfer knowledge and capacity building within the education system hierarchy.

99. The program builds on previous PA and partner programs as well as on existing implementation capacity. A key element of the program preparation process has been a series of intensive discussions with the MOE and key international partners to look critically at the different interventions and gaps in the implementation of previous projects. This will reduce fragmentation and avoid the risks of duplication. As such, program preparation has not simply been supporting the design of a “project”, rather it has supported the PA to start developing a joint vision for the way forward. Over the longer term, this collaboration provides the basis for ensuring support that will be complementary and coordinated as the program rolls-out. This program also builds on and will strengthen existing programs, structures, and implementation capacity.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

Economic Analysis

100. **By improving the quality of education in WB&G and equipping Palestinian graduates with relevant skills for the labor market, SERATAC is expected to generate substantial benefits both at the individual and societal level.** At the individual level, improved learning outcomes and education-to-work transition are expected to lead to higher earnings. There is also rich international evidence suggesting that better learning is associated with increased health and well-being.⁵⁹ At the societal level, high-performing education systems are strongly associated with economic growth.⁶⁰ In the FCV context of WB&G, the importance of human capital can hardly be overstated. As such, SERATAC is tackling a key driver of WB&G’s development trajectory.

101. **With an estimated financing envelope of US\$60 million for the SERATAC, the cost of the program appears low relative to the expected gains.** With the strengthening of foundational skills, the enhancement of STEM teaching and learning, and the overhauling of the student assessment system, SERATAC is supporting strategic reform areas in the education sector that have the potential to spur transformational change. The design of all program components is fully anchored in latest international research on cost-effective education interventions. As such, the expected long-term benefits of the interventions financed under the SERATAC are expected to far outweigh the cost of the operation.

102. **The Bank’s financing and convening power are key to support the MOE in pursuing a long-term strategic vision for the education sector.** Given the political and economic context of WB&G, the PA is operating in an environment of permanent and severe budget constraints. Substantial long-term financing for the education sector is urgently needed to address fragmented reform efforts and piecemeal approaches. A long-term engagement through programmatic approach would allow the PA to plan with more certainty and strengthen commitment to a 10-year reform agenda needed to achieve lasting change in the education sector. SERATAC would further send a strong signal to other donors and development partners, with the potential to harmonize support provided to the MOE.

103. **A cost-benefit analysis for Phase 1 suggests that even under conservative assumptions SERATAC is expected to yield high returns.** Gains in student learning are expected to translate into future higher earnings in the labor market. The rate of return to an additional year of education in WB&G is estimated at 5.1 percent based on household survey

data. The estimated returns to education in WB&G are higher for women (5.9 percent) than for men (4.3 percent), implying a potential differential impact of SERATAC by gender.⁶¹ The cost-benefit analysis quantifies these private monetary returns of improved education for project beneficiaries and assesses them against the US\$20 million financing envelope under Phase 1 of SERATAC. To derive the estimated future wage premium, the team leveraged available data from the latest Labor Force Survey and existing evidence on the returns to education in WB&G.⁶² Based on assumptions about the number of beneficiaries and their expected entry into the labor market, the aggregate stream of private monetary benefits has been calculated. The estimated net present value (NPV) lies at US\$ 114,928,844, with a lower-end estimate of US\$14,625,037 and a higher-end estimate of US\$7189,788,500. The estimated IRR is 14 percent, with sensitivity analyses yielding a range of estimates between 7 and 17 percent (see Table 5). These results are robust to a variety of sensitivity analyses that reduced both the number of beneficiaries and the estimated impact of SERATAC on student learning. Under conservative assumptions that set the effect size on student learning to a minimum (0.1 standard deviations) and limit the number of beneficiaries to 46,000, the program still yields an IRR of 7 percent.

Table 5. Results of the Cost-Benefit Analysis

	High Case	Base Case	Low Case
Net Present Value	US\$ 189,788,500	US\$ 114,928,844	US\$ 14,625,037
Internal Rate of Return	17%	14%	7%
Key Assumptions (I): Number of student beneficiaries under Phase 1	115,000	92,000	46,000
Key Assumptions (II): Impact on student learning	0.25 SD	0.2 SD	0.1 SD
Key Assumptions (III): Estimated returns to education	5.1%		
Key Assumptions (IV): Labor market entry	41% labor force participation rate (65% for men, 16% for women); entry into labor market on average 2 years upon completion of respective level of education		

Note: A 5 percent discount rate was applied for all scenarios. The number of student beneficiaries was estimated using enrollment patterns in Grades 1-6 from the MOE Statistic Department for the academic year 2021/22 as a proxy. The impact on student learning is expressed in terms of standard deviation (SD) increases based on a review of average effect sizes in international education studies by Evans and Yuan (2020).

104. **Costing estimates for Phase 1 of SERATAC also indicate a high expected efficiency.** For example, the unit cost for teacher training under the program is estimated at US\$23 per day of face-to-face training per teacher. In the efficiency analysis conducted for the Implementation Completion and Results Report of the WB&G Teacher Education Improvement Project (P111394) and associated Additional Financing (P152914), this unit cost compared favorably against other training programs in the region or other lower-middle-income countries.

105. **The cost-benefit analysis does not capture intangible benefits and social externalities.** The long-run benefits of strengthening education at the systems level in alignment with international best practice cannot be fully quantified. In the long run, better student learning may contribute to improvements in health outcomes and reductions in crime.⁶³ As such, the results of the cost-benefit analysis represent a conservative estimate and do not fully capture the full range of benefits expected under SERATAC.



B. Fiduciary

Financial Management

106. A financial management (FM) assessment of the MOE's PCU has been conducted. The assessment concluded that with the implementation of agreed-upon actions, the proposed FM arrangements will satisfy the minimum requirements of the Bank Policy on IPF with PBC (Performance-Based Conditions).

107. **Based on the FM assessment, the overall FM risk is Substantial.** With mitigation measures in place, the project will have acceptable project FM arrangements. The Project will have an experienced PCU which has adequate capacity and experience, the finance team at the MOE PCU is composed of two finance officers, this finance team working on World Bank Projects at the MOE PCU will be the main counterparts responsible for FM and disbursement arrangements. The teams have gained experience with World Bank policies and procedures and are knowledgeable about FM and disbursement processes for World Bank projects. There will be close supervision by the Bank team as well as regular audits and spot check reviews. The current FM performance rating for the two World Bank active projects managed by the MOE PCU is Satisfactory

108. The main FM risks identified under the proposed project relate to: (a) the risk that the project objectives and PBCs will not be sufficiently met, increasing the risk of ineligible expenditures, (b) the lack of prior knowledge of the MOE PCU with IPF-PBC instruments, (c) the risk arising from the relatively large number of civil servants' compensatory payments and the sufficiency and appropriateness of the internal controls over those transactions, and (d) the risk that the financial procedures manual will have to be promptly developed to meet the Project's FM requirements. Risks will be mitigated through several actions as follows:

- The project will be ring-fenced through the institutional set up. After declaration of effectiveness, a separate USD Designated Account (DA) account will be opened for the project and there will be no co-mingling of funds. The MOE PCU will open a separate cost center in the "Bisan" and "Audit" financial accounting systems to separately account for the project funds and expenditures.
- An independent external auditor, acceptable to the Bank, will be hired to audit the financial statements of the Project.
- Expenditure and civil servants' compensatory payments under Component 3 will be subject to an ex-post agreed upon procedures spot review
- The Bank task team will act as a Verification Agent (VA) to perform verification procedures over the proposed PBCs when eligible and confirm their achievement
- Simplified and streamline Interim Un-audited Financial Reports (IFRs) with an extended coverage period of six months will be prepared by the MOE PCU and submitted to the World Bank.
- A Financial Manual will be developed to meet the project's FM requirements as part of the POM.

109. Verification Review. PBCs based disbursement (under Component 3) will be subject to a verification review to confirm the full achievement of the PBC and the eligibility of the payments to be made against the eligible expenditures. PBCs will be used as an additional measure to trigger withdrawals from the grant account for replenishing used advances or for reimbursing the government for self-financed eligible expenditures. The eligible expenditures incurred will need to have an equivalent or corresponding value of PBCs met, otherwise, the disbursement by the Bank will be capped by the value of the PBCs.



110. Spot check review and payment verification. The total expenditures disbursed under Component 3 will be subject to an ex-post Agreed Upon Procedures (AUP) engagement or spot check review. The AUP engagement will be performed on a yearly basis and due within three months after year-end.

111. IFRs should be submitted to the Bank within 45 days after the end of each semi-annual period. The Grant Agreement will require the submission of annual audited project financial statements within six months after year-end. The project's financial statements will be audited by a qualified private sector audit who will perform the audit in accordance with the International Standards on Auditing (ISA).

112. The proceeds of the Grant will be disbursed in accordance with the World Bank's disbursements guidelines, as outlined in the Disbursement and Financial Information Letter (DFIL). The project will follow "Reporting-Based Disbursements" with IFRs that include cash forecasts covering two quarters, other disbursement procedures will also be applicable if necessary. Withdrawal Applications (WAs) will be submitted to the Bank for payments to suppliers and consultants directly (if needed). The documentation supporting expenditures will be retained at the MOE PCU. All disbursements will be subject to the conditions of the Grant Agreement and disbursement procedures as defined in the DFIL.

113. Annex 3 describes in detail the FM assessment, risks and associated mitigation measures, and proposed FM and disbursement arrangements.

Procurement

114. **The procurement under the program will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers, dated November 2020.** "The Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006, and revised in January 2011 and as of July 1, 2016, shall apply to the program. Further, the PA Public Procurement Law No. 8 of year 2014 became effective on July 1, 2016, with additional provisions specified in Section V of the Bank's Procurement Regulations. The Bank's Standard Procurement Documents shall be used for all procurements to be carried out following open international procurement procedures.

115. **The MOE will be responsible for carrying out procurement for all program components through the existing PCU which has adequate capacity and experience in the Bank's procurement regulations.** In implementing the procurement activities under the program, the PCU will coordinate with the relevant MOE departments/technical units responsible for implementation. Detailed procurement processing procedures, with clear responsibilities and business standards for various steps, will be outlined in the POM. A procurement risk and capacity assessment of the PCU was carried out to identify risks and agree on mitigation measures. See Annex 3. The residual procurement risk with the mitigation measures is rated *Moderate*.

116. **The program will finance goods, information and communication technology (ICT), non-consulting services and consultants' services.** The main procurement packages include the procurement of hardware, software, and specialized consultants' services (individuals and firms) required to support the planned improvements described under the program components. For Component 3, the procurement processes for all the procurable items identified under the eligible expenditures of the PBCs related activities should be carried out in accordance with the Bank's Procurement Regulations. The MOE, with support from the Bank, prepared a Project Procurement Strategy for Development (PPSD) to determine the most appropriate procurement arrangements for the program, based on a market analysis.



117. The MOE has also prepared a draft Procurement Plan for the first 18 months of the program which was cleared by the Bank on February 15, 2022. The Procurement Plan will be updated in agreement with the World Bank team annually or as required to reflect the annual program implementation needs.

118. Detailed procurement arrangements are described in Annex 3.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

119. Phase 1 of the program is expected to have an overall positive impact. The environmental and social risks are rated **Moderate**.

120. **Environmental.** Phase 1 of the program does not envisage any civil works, and none of the activities are expected to have adverse impact on biodiversity, tangible, or intangible cultural heritage. Components 1, 2.1, and 2.3 aim to build strong foundations for learning and wellbeing, strengthening and operationalizing the MOE’s STEM education framework, and strengthening the student learning assessment system, none of which will have adverse environmental impacts. However, potential face-to-face training activities may entail risk of exposure to COVID-19. Overall, the environmental risk is low for the PBC-related activities.

121. The risks related to procuring Grades 5 and 6 with classroom resources, and laboratory equipment to enable the adequate implementation of the STEM guide, equipping schools with adequate digital infrastructure needed to deliver, where relevant, the high-tech adaptive learning packages under subcomponent 2.2, in addition to the innovative solutions of mobile libraries and laboratories, are not expected to have adverse impact on the energy and resources efficiency or cause pollution. The technical specifications of the equipment and the mobile vehicles supply bidding documents should comply with pollution prevention, and resources efficiency measures, including exhaust emission, energy efficiency, and fuel-efficient consumption standards.

122. Additionally, an e-waste management plan to guide the handling and disposal of e-waste at the end of life, will be prepared, cleared, and disclosed within two months after the program effectiveness date. Measures to mitigate the occupational health and safety risks on workers including exposure to COVID-19, and related accidents, in addition to generation of minor amounts of waste that may result due to equipment installation, will be included in the specifications of the supplies bidding documents, and in the POM. While no raw material will be procured under the program, measures for safe disposal of waste during the equipment operation will be included in the POM, where also requirements for guidelines, signage, and training relevant to the safe operation of the laboratory equipment will be identified in the laboratory equipment supplies bidding document.

123. As the program’s Phase 1 activities will be implemented in the Gaza Strip, the MOE/PCU commitment to document the United Nations Mine Action Service (UNMAS) certificate for beneficiary schools that have been shelled



in the Gaza Strip prior to commencement of the program activities will be addressed in the POM. Additionally, delays in implementing some of the project activities due to any political unrest should be considered in the activities planning.

124. **Social.** On social aspects, the program is expected to have overall positive impacts. The program does not involve any civil works or land acquisition and resettlement. However, there are certain “moderate” level social risks, primarily pertaining to possible social exclusion and inequitable access of vulnerable or marginalized groups to program benefits that need to be addressed and mitigated. There is a potential risk that schools and staff (teachers, principals, supervisors, counselors), and consequently students and parents/families, in underserved and marginalized areas (e.g., rural and remote locations, access restricted areas (ARAs) etc.) might not benefit equitably from the interventions supported under the program (e.g., provision of trainings and materials, use of score cards and engagement/feedback platforms, use of digital technology for learning, provision of digital skills etc.). Similarly, there is a need to ensure that the requirements of children with disabilities, learning and physical, and concerns as well as needs of underserved and marginalized groups (e.g., children living in single parents’ households, the poor, people in remote locations, etc.) are not overlooked in the development of learning and assessment strategies. To address the issue of possible exclusion of the above groups and consequently exacerbating inequalities and further marginalization, special attention will be paid to the needs of marginalized and/or underserved groups, including children with disabilities, during the design of program activities through widespread information dissemination as well as ensuring their participation in stakeholder meetings and other outreach programs that will be developed under each component. Additional social risks pertain to data privacy breach in the use of digital technologies, health and safety of workers and communities due to potential exposure to COVID-19, for example during face-to-face trainings and installation of equipment, moderate risk of sexual exploitation and abuse (SEA) and sexual harassment (SH) during face-to-face and digital trainings, and labor management issues.

125. For Phase 1, at appraisal stage, five environmental and social standards (ESSs) of the Bank’s Environmental and Social Framework (ESF) are relevant and include: ESS1, ESS2, ESS3, ESS4, and ESS10. The MOE has drafted an Environmental and Social Commitment Plan (ESCP) that has been cleared by the Bank and disclosed in-country (February 15, 2022) and on the Bank system (February 16, 2022). The ESCP includes commitments regarding reporting requirements, institutional arrangements, instruments required for each relevant standard, and availability of GMs for program affected persons and workers, in addition to a commitment to provide orientation to school administrations on management and handling of e-waste at the end of life. Due to the tight timeline for the preparation of this phase of the program, and where the MOE requires further time to prepare the ESF instruments, the program team received clearance to defer the Social Impact Assessment (SIA), and the Labor Management Procedures (LMP) prior to the Program effectiveness date, and the E-waste Management Plan within two months after the Program effectiveness date. The revised timeline has been reflected in the ESCP.

126. The MOE will prepare a SIA to further assess the social risks. The SIA will include an assessment of potential risks such as the risk of exclusion and inequitable distribution of the program benefits; SEA/SH (including in the digital space); health and safety measures for students and teachers due to procurement of equipment for laboratories and mobile laboratories, recommended mitigation measures will inform the program and will be included in the POM and in the specifications of the supplies bidding documents. The SIA will be cleared and disclosed prior to the program effectiveness date.

127. The MOE has prepared a Stakeholder Engagement Plan (SEP) for the program that has been reviewed and cleared by the Bank and disclosed in-country (January 18, 2022) and on the Bank system (February 16, 2022). The SEP includes details of stakeholder engagement and information dissemination activities that have been conducted with



various project stakeholders, including vulnerable groups, during program preparation and will be conducted throughout the life of the program. For purposes of grievance redress, the program will strengthen and use the grievance mechanisms (GMs), for program stakeholders and workers, that have been put in place in the MOE for the ECD project, including for any additional cases of SEA/SH. The GMs will be properly operational within one month of program effectiveness, prior to the carrying out of relevant program activities, and will be maintained throughout program implementation.

128. The MOE will also prepare a standalone labor management procedure (LMP) for the program that will provide guidelines for Occupational Health and Safety (OHS) measures related to supply and installation of lab and IT equipment and minimizing exposure to COVID-19. The LMP will be consulted on, reviewed, and cleared by the Bank, and disclosed in-country and on the Bank system prior to Program effectiveness date.

129. Regarding the PCU's capacity to implement the ESF requirements, the MOE will hire an ESO by April 1, 2022. The ESO will be responsible for the environmental and social (E&S) management of SERATAC, in addition to the ECD operation. The ESO will be assisted by a Support ESO who has been appointed in the Gaza Strip starting February 1, 2022. The Support ESO will be responsible for implementing the E&S management of SERATAC and the ECD operation in the Gaza Strip under the supervision of the ESO. Both the ESO and the Support ESO will need to have the capacity to effectively manage the environmental and social requirements for Phase 1 of the program. Both ESO's will also be provided regular capacity building and training on the management of E&S requirement, including but not limited to management of the: e-waste management, labor, and grievance mechanisms, in addition to OHS related to COVID-19 and installation of the equipment, stakeholder engagement, information dissemination, and code of conduct to mitigate risks related to SEA/SH.

E. Corporate Requirements

Gender

130. **On average, female students consistently outperform their male peers across grades and subjects in WB&G.** A Palestinian girl starting school at age four could expect to complete 12.5 years of schooling by her 18th birthday, whereas the expected years of schooling for her male peer are 11.9.⁶⁴ When factoring in what Palestinian children actually learn at school, the adjusted years of schooling drop to 8.5 years for girls and only 7.6 years for boys.⁶⁵ This gender gap in students' learning outcomes is likely to start in the early grades and persist through lower secondary education, such that by Grade 8, girls substantially outperform boys in mathematics, scoring on average 23 points higher on TIMSS 2011 (415 vis-à-vis 392, respectively).⁶⁶ Similarly, in science, WB&G had the fourth-largest gender gap out of 42 TIMSS participating countries, with girls substantially outperforming boys (434 vis-à-vis 406, respectively).⁶⁷ Gender differences continue into secondary school, where in 2020, 88 percent of female students who took the Tawjihi in 2020 passed it. In contrast, only 76 percent of their male peers passed it.⁶⁸

131. **Yet, despite girls' stronger performance in school, and particularly in sciences and mathematics, STEM is a male dominated field in WB&G.** Female students' self-selection into the STEM stream (34.6 percent) is slightly below that of their male peers (36.1 percent). A wider gender disparity emerges at the tertiary education level, where only 16.3 percent of female students enroll in STEM fields of study, half the share of enrollment for male students (31.4 percent). Like in many other countries around the world, STEM in WB&G remains a male dominated field. In fact, global trends show that girls' interest in pursuing science and engineering, for example, declines over time (from primary to secondary education, then to tertiary education) and then again in the transition to the labor market.⁶⁹ Social norms, and particularly gender stereotypes about women's abilities, are a key factor contributing to this trend.



In many cases, teachers and caregivers underestimate a girl’s math and science abilities compared to that of her male peer. Moreover, the limited role that the education system plays in overcoming these stereotypes and encouraging female students to explore and advance in their STEM learning trajectories, further discourages female students to pursue these subjects later on in their education.⁷⁰ Furthermore, women’s general absence in the STEM workplace perpetuates a cycle of exclusion and reinforces the notion of STEM occupations as male dominated, with fewer role models and inspiring STEM figures to look up to.⁷¹ Such notions are clearly observed in the Palestinian context where, for example, anecdotal evidence shows pervasive gender biases about the ability of female engineers to handle on-the-job field work.⁷²

132. Across its three components, SERATAC will embed actions to address identified gender gaps. Table 6 presents a summary of the proposed activities, and the associated gender gap they aim to reduce.

Table 6. Proposed activities to reduce gender gaps through SERATAC

Component	Identified gender gap	Proposed actions to reduce identified gender gaps
<p>Component 1. Building strong foundations for learning and wellbeing</p>	<ul style="list-style-type: none"> On average, Palestinian female students gain 0.9 learning-adjusted years of schooling more than their male peers. These gender learning gaps likely initiate in the early grades, and in foundational skills such as early reading. 	<ul style="list-style-type: none"> Emphasize the importance for boys to achieve Arabic reading proficiency in the Arabic Literacy Strategy and collect sex-disaggregated data to inform gender-sensitive pedagogical practices and teacher training curricula. Enhance the ability of teachers and school counselors to support the different needs of male and female students.
<p>Component 2: Harnessing technology to improve STEM learning, and better equip students for the labor market</p>	<ul style="list-style-type: none"> Girls substantially outperformed boys in grade 8 mathematics and science. In both subjects, WB&G was among the 5 countries with the largest gender gaps participating in TIMSS 2011. Yet, the lack of a STEM-enabling environment in girls’ schools that encourages them to study STEM fields and helps them overcome gender stereotypes about girls’ weaker abilities in mathematics and science, discourages female students from pursuing STEM. Only 16 percent of female students entering higher education in WB&G in 2019 decided to pursue STEM 	<ul style="list-style-type: none"> Ensure that the adaptive learning program is gender-sensitive in its design and field tested with both male and female students to ensure their differentiated needs and preferences are taken into account to inform a gender-sensitive scale-up. Create a STEM-enabling environment in girls’ schools that encourages female students to explore and nurture their STEM skills and helps them overcome gender stereotypes about their abilities in mathematics and science. Such environments can be created through: <ol style="list-style-type: none"> Tailored training for career guidance staff in girls’ schools, to help enhance staff’s capacity to support female students. Mentoring sessions to help overcome traditional expectations of labor force participation and pursuit of STEM fields of study. These sessions will tap into local female mentors and inspiring role models. Combatting education biases campaigns that target educators and school guidance staff to change the way STEM capabilities and prospects are



	degrees, compared to 31 percent of male students. ⁷³	communicated to female students. Relevant global examples on gender sensitive career counseling that support female students and graduates make better career choices, will be leveraged when designing such campaigns. ⁷⁴ (iv) Engaging families and communities to provide support and encouragement and promote positive reinforcement.
Component 3. Strengthening the student learning assessment system	<ul style="list-style-type: none"> 88 percent of female students who took the Tawjihi in 2020 passed it. In contrast, only 76 percent of their male peers passed it. 	<ul style="list-style-type: none"> Ensure measures to tackle boys’ underperformance are adequately reflected in the national assessment strategy. Support the development of a communications strategy to share PISA and TIMSS result that presents sex-disaggregated data.

133. **Specifically, SERATAC proposes to monitor progress in closing the gap between the STEM-enabling school environment experienced in boys’ schools, and the lack thereof in girls’ schools.** An intermediate indicator is included in the results framework (RF) to monitor “the number of girls’ secondary education schools in which a STEM-enabling school environment has been created, as measured by the implementation of at least two of the proposed gender-sensitive interventions.⁷⁵” The baseline for this indicator is 0. The target is 45 girls’ secondary education schools. A second intermediate indicator is included in the RF to monitor “the share of female secondary students’ that perceive that the STEM-enabling school environment has positively impacted their future career choices”. The baseline for this indicator is 0, and the target is 25 percent of all Grade 10 female students in those female-only schools where the STEM-enabling school environment is implemented.

Climate

134. **This project has been assessed for climate-change related risks using the Climate and Disaster Risk Screening Tool.** Mean annual temperature in the WB&G is projected to increase by 2°C by 2055 (USAID 2017). Based on modeled heat information, there is a high risk of heat waves (ThinkHazard tool, World Bank 2021). Prolonged exposure to extreme heat, resulting in heat stress, is expected to occur at least once in the next five years. The WB&G is also at high risk of experiencing water scarcity, with droughts expected to occur on average every 5 years (ibid.).

135. **SERATAC will have a dedicated focus on contributing to climate change adaptation and mitigation efforts in the WB&G,** fully aligned with the priority to maximize climate resilience as emphasized in the Assistance Strategy FY22-25. Table 7 provides an overview of potential climate co-benefits (CCB) under SERATAC.

Table 7: Climate Co-Benefits by Program Component

Component	Climate Change Adaptation	Climate Change Mitigation
Component 1. Building strong foundations for learning and wellbeing	<ul style="list-style-type: none"> <i>Strengthening resilience to climate change shocks by increasing teacher and student preparedness:</i> by providing capacity building for principals on protocols they should instruct teachers and students to 	<ul style="list-style-type: none"> <i>Promoting climate change awareness in the early grades:</i> reading materials and books that will be part of the package of school interventions under the Arabic literacy strategy could



	<p>follow in the event of natural disasters, the program will strengthen students’ resilience and help them better cope with climate hazards they may encounter in the future (see subcomponent 1.4).</p>	<p>include sustainability and climate change mitigation topics such as energy conservation, solid waste reduction and recycling, and water stewardship in an age-appropriate way to raise awareness in an age-appropriate way in the early grades (see subcomponent 1.2); principals will further be trained to raise awareness on the environmental impacts of the school and promote environmentally sustainable practices among teachers and students (subcomponent 1.4).</p>
<p>Component 2: Harnessing technology to improve STEM learning, and better equip students for the labor market</p>	<ul style="list-style-type: none"> • <i>Strengthening content knowledge and pedagogy of STEM teachers to teach on climate change:</i> pre-service and in-service training delivered to STEM teachers in Grades 5 and 6 will include modules on sustainability and environmental education, including teaching and learning materials to enhance student’s understanding of climate change (see subcomponent 2.2). • <i>Promoting green skills through career guidance:</i> the program will support activities to facilitate the education-to-work transition and enable secondary school graduates to make an informed decision about higher education and TVET opportunities. As part of this intervention, the program will support the promotion of careers in industries leading the green growth agenda, climate-resilient pathways, and transition towards a sustainable, digital economy, to the extent appropriate and aligned with labor market needs in WB&G (see subcomponent 2.3). 	<ul style="list-style-type: none"> • <i>Ensuring energy efficiency/sustainability/recycling of STEM classroom resources and lab equipment:</i> any classroom resources and lab equipment to be procured under this component in support of strengthening STEM education in Grades 5 and 6 will comply with energy efficiency and waste management standards, to the extent applicable and feasible (see subcomponent 2.2).
<p>Component 3. Strengthening the student learning assessment system</p>	<ul style="list-style-type: none"> • <i>Promoting climate change awareness through curriculum reform and capacity building of education policymakers:</i> as part of the Tawjihi reform process, the MOE will conduct a comprehensive review to compare the exam design against the learning objectives laid out in the curriculum (see subcomponent 3.2). This review would inform potential adjustments in the upper primary and secondary school curriculum in subsequent phases of SERATAC. The process 	



	<p>can be leveraged to mainstream climate change awareness measures in the curriculum and build capacity among decision makers across relevant ministries and agencies on the role of the education sector in addressing climate change, as appropriate a coordinated policy response and potential curriculum revision for a better understanding in climate change adaptation and mitigation.</p>
Crosscutting	<ul style="list-style-type: none"> • <i>Strengthening climate change resilience through higher educational attainment:</i> low levels of educational attainment are associated with poor disaster preparedness, less adaptive response to shocks, and slower recovery.⁷⁶ The different activities under SERATAC aim to improve student learning outcomes. As such, the program as a whole is expected to increase educational attainment, which in turn would strengthen climate change resilience.

136. The activities listed above qualify for mitigation co-benefits as per the 2020 Joint Report on Multilateral Development Banks’ (MDB) Climate Finance, laying out the revised MDB methodology for tracking climate mitigation finance.⁷⁷

Citizen Engagement

137. **SERATAC recognizes the significance of citizen engagement and involvement of beneficiaries for meeting key development outcomes.** The design ensures the involvement of a range beneficiaries –e.g., teachers, principals, supervisors, students, parents, among others– in the development and rollout of proposed strategies, interventions and reforms (e.g., Arabic Literacy Strategy, STEM Education Framework, training programs, Tawjihi reform). The program will use a variety of citizen engagement mechanisms across components such as: stakeholder consultations for the development of the Arabic Literacy Strategy under subcomponent 1.1.; use of a “report card”, involving principals, teachers and parents to strengthen teaching practices and accountability at the school-level under subcomponent 1.2; feedback mechanisms for users (students, parents, teachers) of an online platform of resources to improve early grade Arabic language proficiency under subcomponent 1.2; feedback mechanisms for users (students, parents, and career guidance staff) of a one-stop shop online information portal and associated mobile application providing relevant and timely education and labor market information under subcomponent 2.3; and stakeholder consultations to support the design and roll-out of the Tawjihi reform under subcomponent 3.2. An indicator is proposed for the results framework to capture collaboration with civil society to achieve the program’s objectives: “Number of local universities contributing to the development or implementation of the new module on evidence-based methods for teaching Arabic language arts in basic education”. This collaboration will be formalized through local university’s membership in the MOE’s Working Group for the development of the Arabic teaching module. This Working Group will convene quarterly, at minimum, and university’s feedback will be provided through written inputs that the MOE will compile to guide the design and implementation of the Arabic teaching training module.

V. GRIEVANCE REDRESS SERVICES

138. 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 in order 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, as a result 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 Grievance Redress Service (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.

VI. KEY RISKS

139. **Based on an assessment of the risk to the PrDO, the overall residual risk for the program is rated Moderate.** The risk associated with the Macroeconomic context is “High”. The protracted impact of the COVID-19 pandemic has introduced an additional layer of uncertainty that may affect progress towards the PrDO. However, other risk categories are mostly rated either Substantial or Moderate. Considering the residual risk after mitigation measures that build on lessons learned from ongoing and previous operations in the education sector, the overall risk is rated Moderate.

140. **Political and Governance risk is Substantial** due to the potential impact of political instability particularly in Gaza. However, based on lessons learned from implementing a series of education projects over the past two decades, it is highly unlikely that such risk will adversely impact program implementation. Despite the protracted conflict, fragility, and resource constraints, the PA places a high emphasis on education, perceiving it as a basic social right, and increasingly invests in people's health and wellbeing to build human capital to generate a lasting return. The MOE's significant achievements to date in all facets of the education sector are closely linked to the strong emphasis placed by all Palestinian families in educating their children. This is witnessed by the near universal primary enrollment rates in WB&G despite the prevailing political and social constraints. SERATAC builds on the MOE's strong commitment to enhancing learning outcomes and undertaking an unprecedented reform agenda. To mitigate the effects of the FCV context, the program is designed to address key sectoral priorities. It will allow for greater flexibility in responding to emergent needs, as well as regular monitoring and realignment between policy and implementation. The program will mostly focus on soft components (i.e., quality enhancements) that are unlikely to be severely impacted by the access and mobility restrictions. Finally, the Bank's convening power will help facilitate linkages with sectoral programs and leverage synergies among development partners, resulting in increased coordination and developmental impact.

141. **Macroeconomic risk is High** due to the large fiscal deficit financed mostly through the declining support from donors, and lack of control over public finances in Gaza. Combined with the negative shock to the Palestinian economy caused by the COVID-19 pandemic, the macroeconomic instability may affect teacher and the MOE civil servants' salary payments, and the achievement of the PrDO. Despite the PA's limited fiscal space, it roughly spends 5.3 percent of its GDP on public education. To mitigate the macroeconomic risks, the program is being implemented in close coordination with development partners and will explore opportunities to mobilize private capital to maximize financing towards the Program development outcomes.

142. **Sector Strategies and Policies risk is Moderate** as SERATAC is fully anchored in existing strategies, including the 2017-2022 Education Sector Strategic Plan as well as the MOE's Education Recovery Plan to address the impacts of COVID-19 on student learning. Additionally, over the past decade, the MOE has consistently demonstrated a clear vision and commitment towards improving the quality and relevance of education. This includes instituting key reforms including progress achieved in improving the pre-service and in-service primary education; and undertaking an ambitious curriculum reform plan involving preschool, primary and secondary education. Efforts are currently underway to revamp vocational education at the secondary level and reform the Tawjihi—the secondary school-leaving



examination. Building on this momentum, the program will help the MOE move to new and innovative frontiers, operationalize its strategic vision and deliver high-quality interventions at a national scale.

143. **Technical Design of the Program risk is Moderate** as the program design is informed by rich analytical work conducted by the World Bank, including the 2021 report “Advancing Arabic Teaching and Learning: A Path to Reducing Learning Poverty in MENA”, the Digital Economy Assessment for the WB&G, and the Education Sector Programmatic ASA (P175094). In addition, the lessons learned from previous and ongoing operations including the Teacher Education Improvement Project (P111394), Improving Early Childhood Development in the WB&G (P168295) and the Education-to-Work-Transition Project (P129861), have strongly informed the program’s design and implementation arrangements.

144. **Institutional capacity for implementation and sustainability risk is Moderate.** The MOE has a strong positive track record of implementing World Bank projects with overall satisfactory implementation completion reports. While the program will use a new financing instrument, the MOE has demonstrated high implementation capacity in previous Bank projects and is also familiar with Bank’s operational and fiduciary guidelines, as well as the requirements of the Environmental and Social Framework. The MOE will further mobilize global, regional and local expertise to provide tailored technical assistance in support of the program objectives.

145. **Environmental and Social risk is rated Moderate** based on an assessment of key environmental and social risks and impacts, as well as proposed mitigation measures and actions described in the Environmental and Social Review Summary (ESRS).

146. **Fiduciary risk is considered Substantial.** This is based on a financial management (FM) risk rating of Substantial and a procurement risk rating of Moderate. The fiduciary risk is assessed Substantial. The main FM risks identified under the program relate to: (a) lack of knowledge and non-compliance with the PBCs, thereby increasing the risk of ineligible expenditures; and (b) delays in preparing the financial procedures manual to meet the Project’s FM requirements. Risks will be mitigated through a strong management information system, development of a comprehensive FM manual, experienced FM and procurement staff that are currently working on World Bank-financed projects being implemented by the PCU, close supervision by the Bank, as well as regular financial audits.

147. **Stakeholder risk is Moderate.** The program will be designed and implemented in close consultation with all relevant stakeholders, who provide a significant and diverse source of donor support to the education sector, ranging from pre-primary to tertiary education. Stakeholder consultations are explicitly embedded in the program design and the MOE has repeatedly demonstrated its commitment to a transparent and participatory reform process, including through high-profile events over the past year.⁷² Yet, it is expected that the MOE will face opposition on the Tawjihi reform. The high-stakes exam has shaped the education system in WB&G for decades and previous reform attempts have been derailed by vested interests. As such, the proposed reform will be implemented gradually based on a consultative and participatory process with all relevant stakeholders. The MOE will first conduct a review of the role, design and outcomes of the Tawjihi and options for improvement, including lessons learned from regional and international experience. Continuous stakeholder consultations will remain at the core throughout all phases of SERATAC.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: West Bank and Gaza

Supporting an Education Reform Agenda for Improving Teaching, Assessment and Career Pathways

Project Development Objective(s)

Improve teaching practices in primary grades and introduce effective career guidance for secondary school students.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
Improved education outcomes at the primary and secondary education levels			
PrDO-Level Indicator 1: Share of Grade 2 students reaching a minimum oral reading fluency rate (Percentage)		46.00	60.00
PrDO-Level Indicator 2: Share of Grade 8 students reaching the TIMSS Low International Benchmark in both mathematics and science (Percentage)		48.00	55.00
PrDO-Level Indicator 3: Share of Grades 1-12 students in classes with improved instructional practices (Percentage)		0.00	20.00
New student pathways leading to tertiary education			
PrDO-Level Indicator 4: New inclusive and more flexible student pathways leading to tertiary education created (Yes/No)		No	Yes
Improved teaching practices in primary grades			
DO-Level Indicator 1: Share of Grades 1-4 teachers implementing improved Arabic reading instructional practices (Percentage)		0.00	25.00
DO-Level Indicator 2: Share of Grade 5 teachers implementing the adaptive learning program for mathematics (Percentage)		0.00	25.00
DO-Level Indicator 3: Participation of West Bank & Gaza in PISA	PBC 3	No	Yes



Indicator Name	PBC	Baseline	End Target
2022 and public dissemination of its results (Yes/No)			
Introduce effective career guidance for secondary school students			
DO-Level Indicator 4: Share of Grade 10 students who received guidance from a professionalized school counsellor and reported an increase in their understanding of academic and career pathways (Percentage)		0.00	25.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Building Strong Foundations for Learning and Wellbeing			
An Arabic literacy strategy is developed (Yes/No)		No	Yes
Number of local universities contributing to the development or implementation of the new module on evidence-based methods for teaching Arabic language arts in basic education (Number)		0.00	5.00
Number of basic school principals trained in how to promote positive school climates (Number)		0.00	800.00
Harnessing Technology to Improve STEM Learning and Better Equip Students for the Labor Market			
MOE STEM Framework is strengthened and accompanying Implementation Plan is developed (Yes/No)		No	Yes
Module on sustainability and environmental education embedded in pre-service and in-service training for STEM teachers in grades 5 and 6 to improve students' understanding of climate change (Yes/No)		No	Yes
Number of career guidance staff benefiting from professionalization activities (Number)		0.00	400.00



Indicator Name	PBC	Baseline	End Target
Number of girls' secondary education schools in which STEM-enabling school environment has been created (Number)		0.00	45.00
Share of Grade 10 female students that perceive that the STEM-enabling school environment has positively impacted their future career choices (Percentage)		0.00	25.00
Strengthening the Student Learning Assessment System			
National Assessment Framework is strengthened and officially adopted (Yes/No)	PBC 1	No	Yes
Review of role, design and outcomes of the Tawjihi is completed (Yes/No)	PBC 2	No	Yes
Number of public stakeholder consultation events conducted on the Tawjihi reform (Number)		0.00	3.00
MOE dissemination plan on PISA 2022 results is developed (Yes/No)		No	Yes
Share of senior MOE staff aware of Palestinian PISA 2022 results (Percentage)		0.00	50.00
Data from large-scale student assessments and resulting policy priorities referenced in MOE Update on Education Sector Strategic Plan (Yes/No)		No	Yes
Publication of West Bank & Gaza results in IEA's official TIMSS 2023 report (Yes/No)	PBC 4	No	Yes
Cross-Component indicators			
Students benefiting from direct interventions to enhance learning (CRI, Number)		0.00	80,000.00
Students benefiting from direct interventions to enhance learning - Female (CRI, Number)		0.00	42,000.00
Teachers recruited or trained (CRI, Number)		0.00	2,800.00
Number of teachers recruited (CRI, Number)		0.00	0.00
Teachers recruited or trained - Female (RMS requirement)		0.00	1,600.00



Indicator Name	PBC	Baseline	End Target
(CRI, Number)			
Number of teachers trained (CRI, Number)		0.00	2,800.00
Findings from the learning agenda are available in time for project preparation of Phase 2 of the MPA (Yes/No)		No	Yes

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
PrDO-Level Indicator 1: Share of Grade 2 students reaching a minimum oral reading fluency rate	This indicator would measure improvements in the percentage of Grade 2 students reaching a minimum oral reading fluency rate in Arabic. For its measurement, the indicator will rely on the Early Grade Reading Assessment (EGRA), or an alternative comparable tool that will be administered on a nationally representative sample. The minimum oral reading fluency rate would	This indicator will be measured every three years: 2025, 2028 and 2030. Years of administration may vary in response to logistical or force majeure	EGRA or an alternative, comparable tool	Administration of EGRA or an alternative, comparable tool	MOE's Center for Educational Research and Development



	<p>be calculated as the number correct words per minute (cwpm), with the minimum set at > 15 (which is close to the baseline average cwpm of 17 from the 2014 EGRA).</p> <p>Note: The baseline data is from the 2014 EGRA, which was administered in West Bank.</p>	considerations.			
<p>PrDO-Level Indicator 2: Share of Grade 8 students reaching the TIMSS Low International Benchmark in both mathematics and science</p>	<p>This indicator would measure the increase in the share of Grade 8 students that reach the TIMSS Low International Benchmark in both mathematics and science, from the baseline.</p> <p>Students that reach the TIMSS Low International Benchmark in mathematics have some knowledge of whole numbers and decimals, operations, and basic graphs. Students that reach the TIMSS Low International Benchmark in science can recognize some</p>	<p>This indicator will be measured every TIMSS round, once results become publicly available</p>	TIMSS international databases	TIMSS 8th Grade assessment	MOE PCU



	<p>basic facts from the life and physical sciences. They have some knowledge of biology, and demonstrate some familiarity with physical phenomena, can interpret simple pictorial diagrams, complete simple tables, and apply basic knowledge to practical situations.</p> <p>Note: WB&G last participated in TIMSS in 2011. This baseline may be updated, if deemed appropriate by the World Bank, in 2024 when results from TIMSS 2023 are released.</p>				
<p>PrDO-Level Indicator 3: Share of Grades 1-12 students in classes with improved instructional practices</p>	<p>This indicator would measure the share of students in Grades 1-12 in classes where improvements in teaching instructional practices are observed, as measured through classroom observations conducted in a nationally representative sample of public school classrooms, with the</p>	<p>This indicator will be measured at every round of classroom observation administration, proposed</p>	<p>MOE's database of the classroom observations</p>	<p>Classroom observation</p>	<p>MOE PCU</p>



	<p>following specifications:</p> <p>*The sample should be stratified at the education level (for example, by lower primary, upper primary, and secondary education levels), as agreed upon between MOE and the World Bank.</p> <p>*An appropriate classroom observation instrument will be developed/adapted based on the latest research evidence, and administered in a way such that ensures temporal comparability and reliability of data collection.</p> <p>*“Improved instructional practices” will be defined as the implementation of key elements of the pre-service and/or in-service training on instructional practices provided under SERATAC. “Key elements” will be defined as part of the expert development of the teacher training under the Program and as</p>	<p>to take place in 2023, 2025, 2028 and 2030. Years of administration may vary in response to logistical or force majeure considerations.</p>			
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	deemed appropriate by the World Bank. Unit of measure: Percentage (cumulative)				
PrDO-Level Indicator 4: New inclusive and more flexible student pathways leading to tertiary education created	<p>This indicator would measure whether new inclusive and more flexible pathways have been created for 12th grade students in WB&G to transition to tertiary education. The creation of a pathway is defined as (i) the enactment of any necessary regulatory and/or legal changes, and (ii) its implementation, in the form of a cohort of Grade 12 students having the option of taking this pathway. A new pathway may be any of the following:</p> <p>*Receiving a general secondary school certificate, after passing Grade 12, that acknowledges and signals to the labor market the completion of 12 years of</p>	This indicator will be measured on an annual basis starting in 2023.	Administrative data and newly created regulatory/legal frameworks	Review of administrative data and review of newly created regulatory/legal frameworks	MOE PCU



	<p>education, irrespective of the Tawjihi exam</p> <p>*A pathway leading to technical and vocational colleges after passing Grade 12, by receiving a general secondary school certificate that can be accepted by these colleges to grant admission, irrespective of the Tawjihi exam; or a pathway to technical and vocational colleges, by replacing the aggregate Tawjihi score with other criteria that capture students' preferences, talents and/or education achievement trajectory;</p> <p>*A pathway leading to more fields of study at university, by replacing the aggregate Tawjihi score with other criteria that capture students' preferences, talents and/or educational achievement trajectory for university admission.</p>				
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	*Other pathways that may improve the transition of secondary students to tertiary education.				
DO-Level Indicator 1: Share of Grades 1-4 teachers implementing improved Arabic reading instructional practices	<p>This indicator will measure the share of Grades 1-4 teachers, responsible for Arabic language instruction. who are implementing the Arabic reading instructional practices featured in the training under Component 1. Specifically:</p> <p>*The measurement of this indicator will rely on the nationally representative classroom observations administered to report on PrDO-level indicator 3.</p> <p>*“Improved Arabic reading instructional practices” will be defined as the implementation of key elements of the pre-service and/or in-service training on Arabic instructional practices provided under SERATAC. “Key elements” will be defined as part of</p>	<p>Two rounds of classroom observation are proposed to be administered in Phase 1, the first one in 2023, and the second one in 2025. Years of administration may slightly vary in response to logistical or force majeure considerations.</p>	MOE's database of the classroom observations	Classroom observation	MOE PCU



	the expert development of the teacher training under the Program and as deemed appropriate by the World Bank.				
DO-Level Indicator 2: Share of Grade 5 teachers implementing the adaptive learning program for mathematics	This indicator will measure the share of Grade 5 mathematics teachers who are implementing the adaptive learning program under Component 2, as part of their mathematics instruction. The measurement of this indicator will rely on the nationally representative classroom observations administered to report on PrDO-level indicator 3.	Two rounds of classroom observation are proposed to be administered in Phase 1, the first one in 2023, and the second one in 2025. Years of administration may slightly vary in response to logistical or force majeure considerations.	MOE's database of the classroom observations	Classroom observation	MOE PCU



<p>DO-Level Indicator 3: Participation of West Bank & Gaza in PISA 2022 and public dissemination of its results</p>	<p>This indicator will track the publication of the WB&G results in the official OECD PISA 2022 report to ensure transparency and promote accountability. Monitoring public dissemination of results will be based on the MOE PISA 2022 dissemination plan, which should be updated on a monthly basis to report on completed dissemination activities.</p>	<p>This indicator will be measured in 2023, when OECD publishes its PISA 2022 Report.</p>	<p>OECD's PISA website; MOE PISA dissemination plan</p>	<p>Verification of the publication of the WB&G results in the official OECD PISA 2022 Report</p>	<p>MOE PCU</p>
<p>DO-Level Indicator 4: Share of Grade 10 students who received guidance from a professionalized school counsellor and reported an increase in their understanding of academic and career pathways</p>	<p>This indicator will measure the percentage of Grade 10 students who (i) received career guidance by a school counselor who has been professionalized under the training program of Component 2, and (ii) report an increase in understanding of their academic and career pathways.</p> <p>Unit of measure: Percentage (Cumulative)</p>	<p>This indicator will be measured on an annual basis starting in 2023.</p>	<p>MOE's database of the high-school online survey</p>	<p>Online survey among high-school students</p>	<p>MOE PCU</p>



Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
An Arabic literacy strategy is developed	A clearly articulated strategy to improve children's development of Arabic, with quantifiable goals and actions for all stakeholders has been developed.	Annual monitoring until end target is met.	MOE	Document review	MOE PCU
Number of local universities contributing to the development or implementation of the new module on evidence-based methods for teaching Arabic language arts in basic education	This indicator will measure the number of local universities who are contributing to the development and/or implementation of the new module on evidence-based methods for teaching Arabic language arts, and strengthening their own capacity as a result. This collaboration will be formalized through local universities' membership in MOE's Working Group for the development of the Arabic teaching module. This Working Group will convene quarterly, at	Annual monitoring until end target is met.	MOE	Administrative data	MOE PCU



	<p>minimum, and universities' feedback will be provided through written inputs that MOE will compile to guide the design and implementation of the Arabic teaching training module. The contribution of the universities will be confirmed by the Working Group chair. This would entail interviews with the chair regarding the actual contribution of each university and would help to close the feedback loop by acknowledging that their input was received and utilized in the development of the module.</p> <p>Unit of measure: Number (cumulative)</p>				
<p>Number of basic school principals trained in how to promote positive school climates</p>	<p>This indicator will track the number of basic school principals who have received training to promote positive school climates under Component 1 of the program.</p>	<p>Annual monitoring until end target is met.</p>	<p>MOE</p>	<p>Administrative data</p>	<p>MOE PCU</p>



	Unit of measure: Number (cumulative)				
MOE STEM Framework is strengthened and accompanying Implementation Plan is developed	This indicator will monitor the strengthening and operationalization of MOE's existing STEM Framework to cover early grades up to secondary and tertiary education, strengthening its connection with the current and projected labor market needs over the next decade, mechanisms to ensure it remains a "live" framework. This will also include the development of an accompanying Action Plan that articulates the roles of different actors, provides costing for the envisioned activities and their scale-up, and includes monitoring and evaluation mechanisms to track progress and lessons learned.	Annual monitoring until end target is met.	MOE	Document review	MOE PCU
Module on sustainability and environmental education embedded in pre-service and in-service training for STEM teachers in grades 5 and 6 to	This indicator will monitor the inclusion of climate science in the pre- and in-service training program	Annual monitoring until end target is	MOE	Document review	MOE PCU



improve students' understanding of climate change	for STEM teachers to improve their content knowledge and pedagogy to teach their students about climate change.	met			
Number of career guidance staff benefiting from professionalization activities	This indicator will track the percentage of career guidance staff (school counselors, "career leaders" in schools without counselors, and district officials) benefiting from professionalization activities (i.e., the in-service training, access to the Online Resource Bank, or participation in the exchange of knowledge and experiences under a partnership established with a renowned international institution with established experience in professionalizing career guidance counselors). Unit of measure: Number (Cumulative)	Annual monitoring until end target is met	MOE	Administrative data	MOE PCU
Number of girls' secondary education schools in which STEM-enabling school environment has been created	This indicator will measure the number of girls' secondary education	Annual monitoring until end	MOE	Administrative data	MOE PCU



	<p>schools in which a STEM-enabling school environment has been created, as measured by the implementation of at least two gender-sensitive interventions. These interventions can include:</p> <p>(i) Tailored training for career guidance staff in girls' schools, to help enhance staff's capacity to support female students.</p> <p>(ii) Mentoring sessions to help overcome traditional expectations of labor force participation and pursuit of STEM fields of study. These sessions will tap into local female mentors and inspiring role models.</p> <p>(iii) Combatting education biases campaigns that target educators and school guidance staff to change the way STEM capabilities and prospects are communicated to female students. Relevant</p>	target is met			
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	<p>global examples on gender sensitive career counseling that support female students and graduates make better career choices, will be leveraged when designing such campaigns.</p> <p>(iv) Engaging families and communities to provide support and encouragement, and promote positive reinforcement.</p> <p>(v) Other gender sensitive interventions.</p> <p>Unit of measure: Number (cumulative)</p>				
<p>Share of Grade 10 female students that perceive that the STEM-enabling school environment has positively impacted their future career choices</p>	<p>This indicator will measure the share of Grade 10 female students that perceive that the STEM-enabling school environment supported under Component 2 of the program has positively impacted their future career choices. The denominator for this</p>	<p>Annual monitoring until end target is met</p>	<p>MOE's database of the high-school online survey</p>	<p>Online survey among high-school students</p>	<p>MOE PCU</p>



	<p>indicator will be all Grade 10 female students in those female-only schools where the STEM-enabling school environment is implemented.</p> <p>Unit of measure: Percentage (Cumulative)</p>				
National Assessment Framework is strengthened and officially adopted	<p>This indicator will monitor the strengthening of the National Assessment Framework to consolidate the purpose, objectives, and reform plans for each type of assessment (including school-based assessments, socioemotional skills assessment, the Tawjihi exam, NLSAs, and ILSAs) in a single reference document, building on existing strategies already developed by MOE. The National Assessment Framework will be officially adopted by MOE and published on the MOE website.</p>	Annual monitoring until end target is met	MOE website	Document review	MOE PCU
Review of role, design and outcomes of the Tawjihi is completed	This indicator will monitor the completion of a series	Annual monitoring	MOE	Document review	MOE PCU



	of analytical work on the role, design, and outcomes of the Tawjihi to provide rigorous evidence on (1) relevant regional and international benchmarks, (2) the predictive validity of the Tawjihi results for future success in tertiary education, (3) disparities in Tawjihi results by gender, region, socioeconomic status, and other relevant variables, (4) the cost effectiveness of the exam, and (5) specific options for improvement.	until end target is met			
Number of public stakeholder consultation events conducted on the Tawjihi reform	This indicator will monitor the number of public stakeholder consultation events conducted on the Tawjihi reform. These events may target a specific stakeholder group (such as local universities or teachers) or could be open to the general public. The MOE will be expected to document the date and location of the event, number of participants, and a brief summary of	Annual monitoring until end target is met	MOE	Document review	MOE PCU



	opinions shared by the stakeholders.				
	Unit of measure: Number				
MOE dissemination plan on PISA 2022 results is developed	This indicator will monitor the development of an MOE dissemination plan on PISA 2022 based on which the public dissemination of results (DO indicator) will be monitored. The plan should outline public engagements planned by MOE, including which channels will be used for dissemination of results (for example, local TV, local newspapers, MOE website, etc.) and a broad timeline.	Annual monitoring until end target is met	MOE	Document review	MOE PCU
Share of senior MOE staff aware of Palestinian PISA 2022 results	This indicator will monitor awareness of Palestinian PISA 2022 results among senior MOE staff (defined as Department Head or above in central MOE and the district offices), a key prerequisite to effective use of PISA data for education policymaking. Awareness of PISA results will be measured through an anonymized online	Annual monitoring until end target is met	Online survey among MOE staff	Anonymized online survey disseminated to relevant MOE staff	MOE PCU



	<p>survey. Awareness may be defined as knowledge of WB&G position in the international ranking of PISA participants, WB&G's relative performance in Arabic, math, and science; and key variables most strongly associated with learning outcomes in WB&G. A general cut-off score for the online survey will be determined to identify if a respondent is aware of PISA results. The online survey will be low stakes with no implications for the respondent's career. Survey results will only be shared with MOE in an anonymized, aggregate format.</p> <p>Unit of measure: Percentage (cumulative)</p>				
<p>Data from large-scale student assessments and resulting policy priorities referenced in MOE Update on Education Sector Strategic Plan</p>	<p>This indicator will monitor the use of PISA, TIMSS, and NLSA data for strategic decisions and MOE policymaking at the sector level. It will be measured by reviewing the periodic</p>	<p>Annual monitoring until target is met</p>	<p>MOE</p>	<p>Document review</p>	<p>MOE PCU</p>



	MOE Update Reports on the implementation of the Education Sector Strategic Plan. The update reports need to reference results and analytical insights from large-scale student assessments and explicitly link them to relevant policy priorities and decisions taken to address challenges in the education sector.				
Publication of West Bank & Gaza results in IEA’s official TIMSS 2023 report	This indicator will track the publication of the WB&G TIMSS 2023 results in the IEA’s official TIMSS 2023 report to ensure transparency and promote accountability.	Annual monitoring until target is met	MOE	Document review	MOE PCU
Students benefiting from direct interventions to enhance learning		Annual monitoring until end target is met	MOE	Administrative data *This indicator will track the number of (i) students in Grades 1-4 who benefitted from improved Arabic language arts instruction and positive school and classroom climates, (ii) students in Grades 5 and 6 who benefitted from STEM classroom activities and adaptive	MOE PCU



				learning program in mathematics. , (iii) students in Grades 9-12 who received career guidance services by professionalized career guidance staff, and (iv) students who received the newly created general secondary school certificate after passing Grade 12.	
Students benefiting from direct interventions to enhance learning - Female		Annual monitoring until target is met	MOE	MOE administrative data	MOE PCU
Teachers recruited or trained		Annual monitoring until target is met	MOE	Administrative data *This indicator will track (i) the number of teachers in Grades 1-4 who have completed the training for Arabic language arts teaching and have been provided with relevant teaching guides and (ii) number of STEM teachers in Grades 5 and 6 that received training on the newly	MOE PCU



				developed module(s) to introduce the use of evidence-based pedagogies.	
Number of teachers recruited		NA	NA	NA	NA
Teachers recruited or trained - Female (RMS requirement)		Annual until target is met	MOE	Administrative data	MOE PCU
Number of teachers trained		Annual until target is met Note: The baseline and end target values will be determined at a later date	MOE	MOE PCU	
Findings from the learning agenda are available in time for project preparation of Phase 2 of the MPA	This indicator will measure whether the findings from the learning agenda are available in time for project preparation of Phase 2 of the MPA.	Annual monitoring until target is met	Third party	Process evaluation and classroom observations	MOE PCU



Performance-Based Conditions Matrix

Performance-Based Conditions Matrix				
PBC 1	Strengthening the Palestinian Student Assessment System			
Type of PBC	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	No	Text	1,300,000.00	6.50
Period	Value	Allocated Amount (USD)		Formula
Baseline	N.A.			
Year 1: 2022	PBC 1a: National Policy Framework on Student Assessment consolidated and officially adopted by the Ministry of Education	600,000.00		N.A.
Year 2: 2023	N.A.	0.00		N.A.
Year 3: 2024	PBC 1b: Technical design of the Palestinian National Large-Scale Assessment in Arabic Grade 5 strengthened	700,000.00		N.A.
Year 4: 2025	See PBC 1a and PBC 1b	0.00		N.A.
PBC 2	Supporting the reform of the Tawjihi exam			
Type of PBC	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	No	Text	2,500,000.00	12.50
Period	Value	Allocated Amount (USD)		Formula
Baseline	N.A.			



Year 1: 2022	N.A.		0.00	N.A.
Year 2: 2023	PBC 2a: Review of the role, design and outcomes of the Tawjihi and options for improvement completed, and results publicly disseminated		1,000,000.00	N.A.
Year 3: 2024	N.A.		0.00	N.A.
Year 4: 2025	PBC 2b: First cohort of Grade 12 students has received the general secondary school certificate		1,500,000.00	N.A.
PBC 3	Expanding the evidence base on learning in West Bank and Gaza through the OECD's Programme for International Student Assessment (PISA)			
Type of PBC	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	No	Text	1,100,000.00	5.50
Period	Value		Allocated Amount (USD)	Formula
Baseline	N.A.			
Year 1: 2022	PBC3a: Legal Agreement signed with the OECD to participate in PISA 2025		300,000.00	N.A.
Year 2: 2023	PBC 3b: PISA 2022 results for West Bank and Gaza published in the OECD's official PISA 2022 report and anonymized microdata made available for research purposes through a globally accessible online database		500,000.00	N.A.
Year 3: 2024	N.A.		0.00	N.A.



Year 4: 2025	PBC 3c: Legal Agreement signed with the OECD to participate in PISA 2028		300,000.00	N.A.
PBC 4	Expanding the evidence base on learning in West Bank & Gaza through the International Association for the Evaluation of Educational Achievement (IEA) Trends in International Mathematics and Science			
Type of PBC	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Intermediate Outcome	No	Text	1,100,000.00	5.50
Period	Value		Allocated Amount (USD)	Formula
Baseline	N.A.			
Year 1: 2022	N.A.		0.00	N.A.
Year 2: 2023	PBC 4a: Legal agreement signed with the IEA to participate in the mathematics and science assessments in TIMSS 2027 for 4th and 8th grade		600,000.00	N.A.
Year 3: 2024	PBC 4b: TIMSS 2023 results for West Bank and Gaza published in the IEA’s official TIMSS 2023 report and anonymized microdata made publicly available for research purposes through a globally accessible online database		500,000.00	N.A.
Year 4: 2025	See PBC 4a and PBC 4b		0.00	N.A.



Verification Protocol Table: Performance-Based Conditions

PBC 1	Strengthening the Palestinian Student Assessment System
Description	PBC 1a: National Policy Framework on Student Assessment consolidated and officially adopted by the Ministry of Education PBC 1b: Technical design of the Palestinian National Large-Scale Assessment in Grade 5 strengthened *Unless the context of the respective PBC otherwise requires, these dates are provided for indicative verification purposes. Whenever feasible and in accordance with their terms, the PBCs can be met in advance or carried forward and met later.
Data source/ Agency	PBC 1a: National Policy Framework on Student Assessment PBC 1b: MOE’s 2024 NLSA technical report for 5th grade
Verification Entity	In accordance with Bank Policy, an Investment Project Financing with PBCs does not require a third party, independent verification agent. Given the simple process required to confirm achievement of the above PBCs, verification will be conducted by the World Bank Task Team. This approach will allow for significant cost savings under the MPA.
Procedure	<p>PBC 1a: The World Bank team will review the National Policy Framework to confirm that it:</p> <ul style="list-style-type: none"> consolidates the purpose, objectives, and reform plans for each type of assessment (including school-based assessments, the Tawjihi exam, NLSAs, and ILSAs) in a single reference document, building on existing MOE strategies; lays out a detailed protocol specifying how student assessment data from will be used at the central, district, school, and classroom level to inform strategic planning, policy decisions, the design and targeting of teacher professional development programs, teaching strategies, and other relevant aspects of the education system. is signed by H.E. the Minister of Education and published on the MOE website. <p>PBC 1b: The World Bank team will review the technical report on the 2024 NLSA for Grade 5 to confirm that the assessment design is fully aligned with the objectives laid out in the National Policy Framework on Student Assessment. The World Bank team will further confirm that the technical report includes detailed information on the methodology applied to design the NLSA and analyze the results. This will include a comprehensive description of the sampling procedure applied, as well as rigorous measures taken to allow for comparability of NLSA results over time.</p>
PBC 2	Supporting the reform of the Tawjihi exam
Description	PBC 2a: Review of the role, design and outcomes of the Tawjihi and options for improvement completed, and results publicly disseminated PBC 2b: First cohort of Grade 12 students has received the general secondary school certificate



	<p>*Unless the context of the respective PBC otherwise require, these dates are provided for indicative verification purposes. Whenever feasible and in accordance with their terms, the PBCs can be met in advance or carried forward and met later.</p>
Data source/ Agency	<p>PBC 2a: Technical report on Tawjihi review; MOE website PBC 2b: List of Grade 12 students that have received the certificate; written confirmation from each MOE district office that certificate has been implemented; publicly available evidence that the certificate has been nationally implemented</p>
Verification Entity	<p>In accordance with Bank Policy, an Investment Project Financing with PBCs does not require a third party, independent verification agent. Given the simple process required to confirm achievement of the above PBCs, verification will be conducted by the World Bank Task Team. This approach will allow for significant cost savings under the MPA.</p>
Procedure	<p>PBC 2a: The World Bank task team will review the analytical work conducted on the role, design and outcomes of the Tawjihi, which will target the following aspects:</p> <ul style="list-style-type: none"> • relevant regional and international benchmarks; • different options for new secondary school certification; • the predictive validity of the Tawjihi results for future success in tertiary education; • disparities in Tawjihi results by gender, region, socioeconomic status, and other relevant variables; • the total cost and cost effectiveness of administering the Tawjihi exam, accounting for both direct cost and opportunity cost incurred by all relevant stakeholders; • specific options for improvement of the Tawjihi, including a discussion of associated benefits and risks. <p>The World Bank team will further confirm that the results of this analytical work have been widely disseminated to all relevant stakeholders, including MOE officials, principals, teachers, parents, students, local universities, and the general public. The dissemination process needs to include at least one large event open to the public to debate the different choices for Tawjihi reform.</p> <p>PBC 2b: The MOE will issue a regulation and obtain any required endorsements from the cabinet and other relevant entities confirming that:</p> <ul style="list-style-type: none"> • the certificate will be conferred to all students upon passing the 12th grade in secondary school; • the certificate will be conferred to students irrespective of whether they sit for the Tawjihi exam; • if students decided to sit for the Tawjihi exam, the general secondary school certificate will be conferred to students irrespective of the results achieved in the Tawjihi exam. <p>The World Bank task team will review three sources of information to confirm that the general secondary school certificate has been conferred to the first cohort of Grade 12 students:</p>



	<ul style="list-style-type: none"> • <i>List of Grade 12 students that have received the certificate:</i> MOE shall provide a complete list with the student names and ID numbers by school who have received the certificate. This list needs to include all students that have successfully passed Grade 12. • <i>District office confirmation:</i> MOE shall provide a written confirmation from each individual district and signed by the local head of the education department confirming that the general secondary school certificate has been handed out to all students who passed Grade 12 in their district. • <i>Publicly available evidence on implementation:</i> the World Bank task team will review publicly available evidence on the national implementation of the certificate. This may include press releases by the MOE, official statements by the Minister and other MOE officials, and any media coverage on the general secondary school certificate.
PBC 3	Expanding the evidence base on learning in West Bank and Gaza through the OECD’s Programme for International Student Assessment (PISA)
Description	PBC 3a: Legal Agreement signed with the OECD to participate in PISA 2025 PBC 3b: PISA 2022 results for West Bank and Gaza published in the OECD’s official PISA 2022 report and anonymized microdata made available for research purposes through a globally accessible online database available for research purposes through the World Bank’s Microdata Library PBC 3c: Legal Agreement signed with the OECD to participate in PISA 2028 *Unless the context of the respective PBC otherwise requires, these dates are provided for indicative verification purposes. Whenever feasible and in accordance with their terms, the PBCs can be met in advance or carried forward and met later.”
Data source/ Agency	PBC 3a: Contract between OECD and Ministry of Education (MOE) PBC 3b: OECD’s PISA 2022 results report; World Bank Microdata Library PBC 3c: Contract between OECD and MOE
Verification Entity	In accordance with Bank Policy, an Investment Project Financing with PBCs does not require a third party, independent verification agent. Given the simple process required to confirm achievement of the above PBCs, verification will be conducted by the World Bank Task Team. This approach will allow for significant cost savings under the MPA.
Procedure	PBC 3a: The World Bank team will review the contract between the OECD and MOE ensuring WB&G’s participation in PISA 2025 and confirm it has been signed by both parties. PBC 3b: The World Bank team will access the official website for PISA 2022 hosted at https://www.oecd.org/pisa/ and confirm that WB&G results have been included in the “PISA 2022 Results” report, that is the average scores achieved by Palestinian students in reading, mathematics, and science are presented as part of the international ranking of all countries and economies that participated in PISA 2022. The World Bank team will further confirm that the Palestinian microdata for PISA 2022 have been uploaded to the <u>World Bank Microdata Library for licensed use</u> , that is the dissemination is restricted



	<p>to <i>bona fide</i> users - authenticated users with legitimate need to access the data - who have received authorization to access them after submitting a documented application and signing an agreement governing the data's use. The agreement governing the data's use must specify that access to the microdata without personally identifiable information will be granted to anybody demonstrating need for research purposes.</p> <p>PBC 3c: The World Bank team will review the contract between the OECD and MOE ensuring WB&G's participation in PISA 2028 and confirm it has been signed by both parties.</p>
PBC 4	Expanding the evidence base on learning in West Bank & Gaza through the International Association for the Evaluation of Educational Achievement (IEA) Trends in International Mathematics and Science
Description	PBC 4a: Legal agreement signed with the IEA to participate in the mathematics and science assessments in TIMSS 2027 for 4th and 8th grade PBC 4b: TIMSS 2023 results for West Bank and Gaza published in the IEA's official TIMSS 2023 report and anonymized microdata made publicly available for research purposes through a globally accessible online database *Unless the context of the respective PBC otherwise requires, these dates are provided for indicative verification purposes. Whenever feasible and in accordance with their terms, the PBCs can be met in advance or carried forward and met later.
Data source/ Agency	PBC 4a: Contract between IEA and MOE PBC 4b: IEA's TIMSS 2023 results report; World Bank Microdata Library
Verification Entity	In accordance with Bank Policy, an Investment Project Financing with PBCs does not require a third party, independent verification agent. Given the simple process required to confirm achievement of the above PBCs, verification will be conducted by the World Bank Task Team. This approach will allow for significant cost savings under the MPA.
Procedure	<p>PBC 4a: The World Bank team will review the contract between the IEA and MOE confirming WB&G's participation in TIMSS 2027 in both the mathematics and the science assessments for Grade 4 and Grade 8, and confirm it has been signed by both parties.</p> <p>PBC 4b: The World Bank team will access the official website for TIMSS 2023 hosted at https://timssandpirls.bc.edu/ and confirm that WB&G results have been included in both the "TIMSS 2023 International Results in Mathematics and Science" report, that is the average scores achieved by Palestinian students in mathematics and science are presented as part of the international ranking of all countries and economies that participated in TIMSS 2023. The World Bank team will further confirm that the Palestinian anonymized microdata for TIMSS 2023 have been uploaded to a globally accessible online database, such as the IEA's TIMSS database or the <i>World Bank Microdata Library</i>. Data access may be restricted to <i>licensed use</i>, that is the dissemination is restricted to bona fide users - authenticated users with legitimate need to access the data - who have received authorization to access them after submitting a documented application and signing an agreement</p>



governing the data's use. These users must be acting on behalf of an organization, who must take responsibility for the use. The agreement governing the data's use must specify that access to the microdata without personally identifiable information will be granted to anybody demonstrating need for research purposes.



ANNEX 1: Implementation Arrangements and Support Plan

Implementation Arrangements

1. **Overall implementation arrangements.** The design of the implementation and institutional arrangements has been informed by lessons from implementing previous World Bank projects at the MOE. The project will be implemented at the national and district levels through relevant MOE departments and their counterparts at the district level. The technical coordination of activities will be managed by the relevant departments at the MOE, while the administrative and fiduciary aspects of the project will be under the PCU's responsibility in full coordination with relevant MOE departments. The implementation arrangements will reflect the MOE's vision to develop and institutionalize the technical, administrative and fiduciary capacity of Ministry staff throughout the implementation of SERATAC. To this end, procurement and financial staff members from the MOE line departments will be assigned to work with relevant PCU team members on implementing the different activities, ensuring the gradual strengthening of capacity, ownership and sustainability of SERATAC.

2. **Program management.** The MOE has an existing Project Coordination Unit (PCU) responsible for implementing World Bank funded projects for the education and higher education sectors. This PCU will be responsible for (a) coordinating implementation and ensuring the overall technical coherence of the program activities across relevant ministries and by liaising with respective district offices; and (b) coordinating all technical, operational, monitoring and evaluation (M&E), financial management, procurement, and environmental and social (E&S) aspects with the respective units and departments at the MOE. The PCU director will supervise the work of the PCU staff and consultants and will be responsible for the day-to-day activities of the proposed components activities.

- **Steering Committee for program oversight.** The overall oversight of the program implementation and monitoring will be under a Steering Committee (SC) chaired by the Minister of Education, or his designate and will comprise representatives from implementing line departments. The SC will be supported by a regular reporting structure provided by the PCU.
- **Central Coordination Committees (Task Management Team):** At each component level, the line directorate general responsible for the implementation of the specific component will appoint a task management team (TMT) to oversee/manage this component on behalf of the MOE. This TMT—headed by the Director General and comprised of 3-5 team members—will be responsible for the day-to-day management of the component. The TMT will be supported by a local consultant who will provide support and insights for the technical implementation of the different activities under each component.

3. **Annual Implementation Plan (IP), Reporting and Operations Manual:** The following arrangements will be carried out to facilitate program implementation:

- IPs with line-item budgets will be prepared by the PCU and relevant MOE departments following a standard format. IPs will be submitted to the Steering Committee for endorsement before delivering to the Bank for clearance. These approved IPs will be monitored monthly by the PCU.
- Reporting: Following the Bank's standard reporting arrangements, the MOE will submit semiannual progress reports to the Bank in a timely manner. Similarly, the MOE will prepare Interim Unaudited Financial Reports (IFRs) semi-annually from program effectiveness through program closing. Audited program financial



statements are to be prepared on an annual basis and be furnished to the Bank no later than six months after the end of each year. Additionally, the PA, in conjunction with the World Bank, will carry out a midterm review, covering the progress achieved in the implementation of the project. To that end, the MOE will prepare and furnish to the Bank a report describing the results and progress achieved in the implementation of the project during the period preceding the date of such report and laying out the measures recommended to ensure the efficient implementation of the project and the achievement of the PrDO during the period following such date. This review will be used to identify performance improvement opportunities and to prepare a revised action plan to guide implementation of the coming two phases.

- A Project Operational Manual (POM) will be developed by the PCU with inputs from the MOE departments involved in the program. This will be prepared and cleared by the Bank not later than 30 days after Effectiveness date. The POM will describe inter alia the relationships, roles, and responsibilities of the Steering Committee, the MOE implementing departments and the role of each decentralized level in working together particularly at the district office level. It will also detail financial management, procurement, safeguards, M&E policies and procedures, communication strategy, and activities as they pertain to the program.
- The Center for Educational Research and Development (CERD) and the Monitoring and Evaluation and Statistics departments at the Directorate General of Planning—both based at the MOE—will be the main entities responsible for collecting and compiling data to inform progress of the RF. The results from international assessments will also feed the monitoring and evaluation indicators specifically related to component 3.

Implementation Support Plan

Strategy and Approach for Implementation Support

4. The implementation support plan takes account of project-specific challenges and key risks defined in section VI of this document. Implementation support mechanisms that are expected to enhance timely and effective monitoring include (a) regular implementation support missions (virtual and/or in-person), (b) regular technical meetings and field visits by the World Bank between formal review missions, and (c) internal audit and FM reporting.

5. The Implementation support will consist of:

- Capacity building activities to strengthen the implementation capacity, covering the technical, fiduciary, and environmental and social dimensions.
- Identification of bottlenecks, monitoring risks and identification of corresponding mitigation measures.
- Close coordination with other donors and development partners to avoid duplication and leverage resources and technical support
- Provision of technical advice and implementation support towards the achievement of the PrDO-level indicators, intermediate results indicators, and the overall PrDO.

6. The World Bank's semi-annual implementation support missions (virtual and/or in-person) will cover technical and non-technical aspects of the program, including program results, financial management, procurement, implementation arrangements and ES requirements. The implementation support plan will be reviewed once a year and adapted to ensure that it meets the implementation support needs. Joint reviews will be held with the MOE to assess the program's progress to coincide with the period of presentation of the program's annual work plans. The reviews will aim at providing implementation support of program activities and to engage in discussions on strategic issues that will contribute to the development of subsequent phases. Financial and procurement reviews will be part



of the review process. Main issues, agreements, and action plans emerging from the meetings will be recorded in minutes and/or *aide-memoires*, which will be used for discussion and monitoring in subsequent meetings.

Table 1.1. Implementation Support Plan

Time	Focus
First 6 months	Project start-up and launch
	Support the MOE in launch of key program areas, specifically: <u>Under Component 1:</u> (i) setting quantifiable goals for children’s Arabic language learning outcomes through a clearly articulated Arabic Literacy Strategy, (ii) reviewing the Arabic language arts standards for Grades 1 and 2 and extend the standards to cover Grades 3 and 4, (iii) reviewing available teaching and learning materials for Arabic language arts in Grades 1–4.
	<u>Under Component 2:</u> (i) reviewing and strengthening the STEM Education Framework and expanding its coverage, (ii) developing an accompanying STEM Action Plan that articulates the roles of different actors, provides costing for the envisioned activities and their scale-up, (iii) strengthening the job description of career guidance staff.
	<u>Under Component 3:</u> (i) technical advice for the achievement of Year 1 PBCs.
	Capacity building under Component 4 on: (i) the preparation of procurement and financial activities and reporting, (ii) the execution of ES plans, (iii) to assigned technical teams under the three components at the ministry and district levels
6-12 months	Support the MOE in launch of the following key program areas: <u>Under Component 1:</u> facilitating collaboration with exemplary providers (from across the region) in Arabic pedagogy, training, support the building of a network of university faculties of education. <u>Under Component 3:</u> (i) technical advice for the achievement of Years 1 and 2 PBCs.
	Support the MOE in launching key tenders and recruitment of firm(s) for: <u>Under Component 2:</u> (i) identifying a leading STEM international university; (ii) identifying participating local universities to implement in-service and pre-service teacher training, (iii) design and implementation of an adaptive learning program, (iv) conducting inventory and gap analysis of existing resources and equipment in Grades 5 and 6 classrooms and corresponding schools.
	Implementation support through technical meetings and field visits.
	Capacity building under Component 4 on: (i) the preparation of procurement and financial activities and reporting, (ii) the execution of ES plans, (iii) to assigned technical teams under the three components at the ministry and district levels
12-36 months	Continued implementation support and field visits to monitor progress and proactively address implementation challenges.
	Implementation support through technical meetings and field visits.

Resource Requirements

7. Table 1.2 lists the skills mix of staff required for the initial implementation period. Health protocols and safety measures will be assessed to inform the modality and composition of each implementation support mission.

**Table 1.2. Skills Mix Required**

Skills Needed	Staff Weeks (SWs)	Number of Trips	Comments
Task Team Leader(s)	30 SWs annually	3 missions first year, then 2 missions annually	
Component Leads	10 SWs annually, per Component Lead	3 missions first year, then 2 missions annually	Component 1 Lead, Subcomponents 2.1 and 2.2 Lead, Subcomponent 2.3 Lead, Component 3 Lead
Arabic Language Specialist	15 SWs annually	3 missions first year, then 2 missions annually	
STEM and Adaptive Learning Specialist	15 SWs annually	3 missions first year, then 2 missions annually	
Career Guidance Specialist	10 SWs	3 missions first year, then 2 missions annually	
Student Assessment Specialist	15 SWs annually	3 missions first year, then 2 missions annually	
Operational Support	6 SWs annually	Missions as required	Country office based
Social Specialist	5 SWs first year, then 2 SWs annually in the following years	Missions as required	Country Office based
Environmental Specialist	5 SWs first year, then 2 SWs annually in the following years	Missions as required	Country Office Based
Procurement Specialist	5 SWs first year, then 2 SWs annually in the following years	Missions as required	Country office based
Financial Management Specialist	5 SWs annually	Missions as required	Country office based



ANNEX 2: Eligible Expenditures for Performance-Based Conditions

- The following procurable and non-procurable expenditures will be eligible for reimbursement under the PBCs.

Table 2.1. Procurable and non-procurable expenditures for reimbursements under PBCs

Eligible procurable inputs	Eligible non-procurable inputs
<ul style="list-style-type: none"> Consulting services for Technical Assistance to strengthen the National Policy Framework on Student Assessment Consulting services for Technical Assistance to strengthen the National Large-Scale Assessment in Grade 5 Consulting services for Technical Assistance to review Tawjihi test design and identify reform options for Palestinian university admissions process Consulting services for Technical Assistance to analyze and disseminate TIMSS and PISA results 	<ul style="list-style-type: none"> Compensation/fees for NLSA exam questions committee, exam correctors, digitization of assessment data, and other related services Compensation/fees for Tawjihi exam committee members, including staff responsible for drafting exam questions, delivering exams to the testing centers, proctoring exams, support services for administration of the exam (security guards, drivers, cleaners), correcting exams, digitizing exam results, making results available to students, and other related services Incremental operating expenditures such as printing, workshops, transportation Contract with IEA on TIMSS participation fees Contract with OECD on PISA participation fees

Note: The total amount of eligible expenditure per year is roughly estimated at US\$6 million.



ANNEX 3: Fiduciary Arrangements

Financial Management

- 1. Implementation Arrangements and Staffing.** Fiduciary activities, including procurement and financial management will be handled by the PCU. The PCU will report to the WB directly and will be in charge of the day-to-day FM and disbursement arrangements of the program, ensuring that they are carried out in accordance with WB guidelines and procedures and that the funds are used for the intended purpose.
- 2. Program FM Risk.** The overall program risk from a financial management perspective after mitigation is Substantial. The following are the main risks and mitigating measures for the implementing entity: (i) there is a risk that the objectives will not be met, (ii) lack of prior knowledge and experience of the PCU with the IPF-PBC instrument, (iii) the risk from potential inclusion and exclusion errors in the processing of the large number of civil servants' compensatory payments under the program and, (iv) the risk of expenditures being ineligible or inappropriate and lack of proper controls over the reporting and recording of those transactions.
- 3. Mitigating Measures.** The following measures will mitigate FM-related risks: (i) The program will be ring-fenced through the institutional set up. (ii) An independent external auditor (or SAACB), acceptable to the Bank, will be hired on a competitive basis, to perform an annual external audit for the project's financial statements, (iii) expenditures and civil servants' compensatory payments under Component 3 will be subject to an ex-post agreed upon procedures spot review by a specialized consultancy/audit firm, (iv) the World Bank Task Team will act as Verification Agent (VA) for the PBCs, (v) PCU has significant experience working on Bank funded projects with a consistent satisfactory performance, and (vi) a detailed financial manual will be developed to meet the program's FM requirements as part of the POM.
- 4. Program Planning and Budgeting:** A disbursement plan will be prepared as well as a financial budget for the life of the program (broken down by year and by quarter). The annual budget will be sent to the Task Team Leader (TTL) at least two months before the beginning of the fiscal year for review.
- 5. Accounting and Financial Reporting.** The Program will follow International Public Sector Accounting Standards (IPSAS) cash basis for accounting or the modified cash basis as deemed appropriate. The PCU will use both Bisan government accounting system and another accounting and financial software "Audit" in parallel.
- 6. Financial Section of the POM:** The MOE PCU will develop and update a detailed FM section of the POM which will cover all administrative, financial, and accounting, budgetary, and human resources procedures relevant to all the program expenditures, processes and cycles and activities to be financed under the program.
- 7. Financial Reporting and Monitoring:** The MOE PCU will maintain their own accounting records and program financial information in a manner acceptable by the Bank. Specifically, the PCU will be responsible for: (i) presenting the grant financial data; (ii) preparing activity budgets (disbursement plan) quarterly as well as annually, monthly DA reconciliation statements, and periodic SOEs (if needed), withdrawal schedule for approval, semiannual IFRs (consolidated for all components) and annual financial statements; and (iii) ensuring that the program's FM arrangements are acceptable to the World Bank. The PCU will produce semiannual and annual reports and submit these to the Bank including (a) Semiannual IFRs (submitted within 45 days after period-end), (b) Annual Project Financial Statements (submitted within six months after year-end).
- 8. Internal Controls.** The PCU will maintain an effective system of internal control and procedures over financial reporting to provide reasonable assurance that that financial information is reliable and accurate, that assets are safeguarded, and that transactions are properly authorized and recorded.

9. **External Auditing.** The Program’s audited financial statements will be audited by a qualified private sector audit firm (or SAACB), a copy of the Program’s annual audited financial statements will be shared with the Bank team for review and comments and for no-objection as well. The Audit firm will be asked to audit the program’s financial statements in accordance with the International Standards on Auditing (ISA) based on ToR acceptable to the Bank. The program’s audited financial statements will be due for submission within six months after the end of each calendar year.

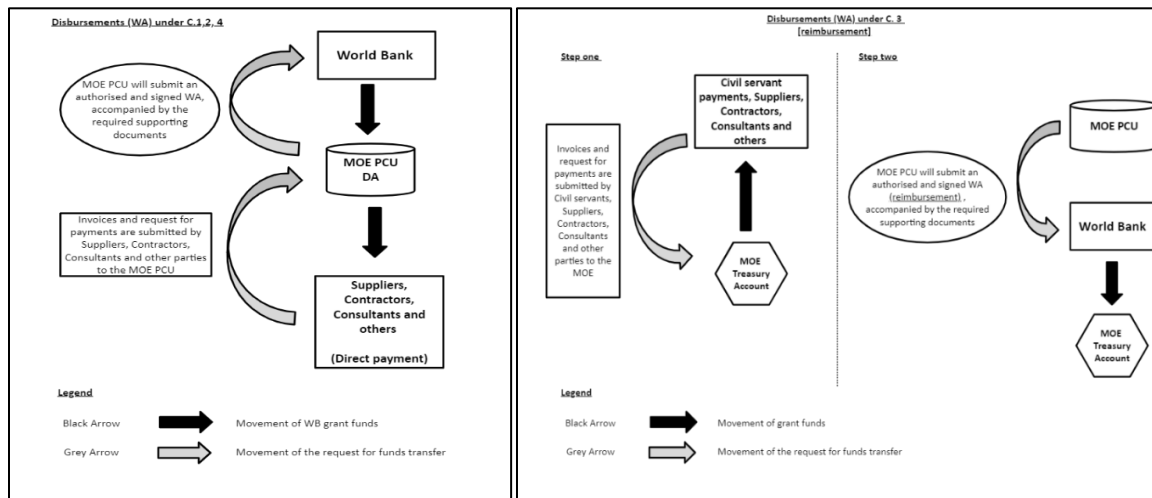
10. **Verification Review.** PBCs based disbursement (under Component 3) will be subject to a verification review. Due to the nature of the PBCs, the Bank’s Task Team will act as a Verification Agent, and promptly review and confirm their achievement. PBCs will be used as an additional measure to trigger withdrawals from the grant account for replenishing used advances or for reimbursing the government for self-financed eligible expenditures. For the Bank to accept and process a withdrawal application (WA), the eligible expenditures incurred will need to have an equivalent or corresponding value of PBCs met. Otherwise, the disbursement by the Bank will be capped by the value of the PBCs even if the reported eligible expenditures exceed the value of achieved PBCs.

11. **Spot Check Review and Payment Verification.** The expenditures disbursed under Component 3 of the Program will be subject to an ex-post Agreed Upon Procedures (AUP) engagement or spot by a qualified consultancy/audit firm and will be performed on a yearly basis starting with the first payment made. The report will be due within three months after the year end. The Terms of Reference (ToR) will be developed by the PCU and will be submitted to the World Bank for no-objection

12. **Grievances and Redress Mechanism (GRM) including reporting or whistleblowers mechanism for any fraud or corruption allegations.** Grievances and whistleblower (fraud and corruption) reports will be received through multiple channels that include the official complaints platform of the PA, MOF, MOE, and Anti-Corruption Committee.

13. **Flow of Funds and Banking Arrangements:** Bank financing will be a Grant to be disbursed through a program-specific Designated Accounts (DA) denominated in USD into which replenishments from Bank resources will be transferred and will be used in financing the components according to the approved budget.

Figure 3.1. Flow of funds



14. **Funds Flow and Disbursement Arrangements.** The proceeds of the Grant will be disbursed in accordance with the World Bank's disbursements guidelines. This will be outlined in the Disbursement and Financial Information Letter



(DFIL) and in accordance with the Bank’s Disbursement Guidelines for Projects (IPF). The Program will follow “Report Based Disbursements” using IFRs as Withdrawal Application templates.

15. **Disbursement process documentation.** Requests for payments from the Grant will be initiated through the use of Withdrawal Applications (WAs) using any of the disbursement methods stipulated in the DFIL. The documentation supporting expenditures will be retained at the MOE PCU and readily accessible. All disbursements will be subject to the conditions of the GA and disbursement procedures as defined in the DFIL.

16. There will be an advance amount specified in the DFIL that can be requested through the first WA. Subsequent disbursements into the DA will be requested through WAs, reconciled bank statements, copies of all bank statements and other necessary and related supporting documents. The supporting documentation for requests for direct payment should be records evidencing eligible expenditures (copies of receipt, suppliers’ invoices). The DA will be held in USD. The ceilings of the DA and the financial institution at which the DA have been agreed during negotiations will be stipulated in the DFIL. E-disbursement will be used to submit WAs. Under e-Disbursement, all transactions will be conducted and associated supporting documents and IFRs scanned and transmitted online using the World Bank’s Client Connection system. The use of E-Disbursement functionality will streamline online payment processing to: (a) avoid common mistakes in filling out WAs; (b) reduce the time and cost of sending WAs to the World Bank; and (c) expedite the World Bank processing of disbursement requests.

17. The Project Operations Manual (POM) will provide a more detailed description of the FM design, assessment, risks and associated mitigation measures, and proposed FM and disbursement arrangements.

Procurement

18. **Applicable Procurement Regulations.** The procurement under the project will be carried out in accordance with the World Bank’s Procurement Regulations for IPF Borrowers, dated November 2020. “The Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006, and revised in January 2011 and as of July 1, 2016, shall apply to the Project. The Bank’s Standard Procurement Documents shall be used for all procurements to be carried out following open international procurement procedures.

19. Procurements subject to national procurement procedures will be carried out as per PA Public Procurement Law no. 8 which became effective on July 01, 2016, with additional provisions specified in Section V of the Bank’s Procurement Regulations. The enactment of the Public Procurement Law represents a substantial improvement to the legal and institutional framework for public procurement. For procurements under national procedures the procurement complaint handling provisions outlined in the World Bank Procurement Regulations and the World Bank Standard Procurement Documents shall continue to be used until National SBDs acceptable to the Bank are prepared and national complaint mechanism is operational and accepted by the Bank.

20. **Procurement Arrangements.** The MOE will be responsible for carrying out procurement for all program components through the existing PCU which has adequate capacity and experience in the Bank’s Procurement Regulations. In implementing the procurement activities under the project, the PCU will coordinate with the relevant MOE departments/technical units responsible for implementation.



21. **Procurement Capacity and Risk Assessment.** A procurement risk and capacity assessment of the PCU was completed by the Bank, with the purpose of identifying the specific risks and appropriate mitigation measures. The key procurement risks include:

- Delays in the procurement, as it is often challenged by bureaucratic decision-making processes, or centralized procurement arrangements applicable under the Procurement Law and also applied to the procurement activities carried out by the MOE under the Bank-financed projects.
- The envisaged procurement activities are rather complex and would require specialized skills, especially those involving the procurement of information and communication technology (ICT) under Component 2.
- Delays in procurement due to lack of technical capacity to develop TORs for the specialized consultancy services under the program components and the technical specifications for the ICT procurements.

22. The following key measures to mitigate procurement risks will be included in the project design:

- Detailed procurement processing procedures, with clear responsibilities and business standards for various steps, will be outlined in the POM. Moreover, the PCU should agree with the central procuring entities on a specific timeframe for processing the procurement activities to be carried out through centralized procurement arrangements.
- For ICT procurement, additional technical support by specialized expert(s) will be made available to the PCU for the definition of the requirements, preparation of bidding documents, evaluation, and supervision of contract execution. Moreover, The Bank's technical experts will provide necessary support and capacity building activities on regular basis.

23. The overall residual procurement risk for the project is considered **Moderate**. The Bank's Prior Review thresholds for Moderate risk rated projects shall apply.

24. **Project Procurement Strategy for Development (PPSD).** The program will finance goods, ICT, non-consulting services and consultants' services. The main procurement packages include the procurement of hardware, software, and specialized consultants' services (individuals and firms) required to support the planned improvements described under the program components. The MOE, with support from the Bank, prepared a Project Procurement Strategy for Development (PPSD) to determine the most appropriate procurement arrangements for the project. Based on previous experiences and the market analysis carried out in the PPSD, the local market, mainly for goods and IT, ensures sufficient competition and has enough qualified and experienced bidders. Most of the consultants' services packages envisaged under the program will be procured following open international competitive procurement procedures using the World Bank's Standard Procurement Documents due to the lack of such specialized services in the local market and in order to ensure a wide competition amongst potential consultants. The procurement of goods and IT equipment is envisaged after the first 18 months of the project.

25. The PPSD concluded that the MOE may need to contract key local universities (approximately 5 in West Bank and 1 or 2 in Gaza), on a single source basis, to contribute to the development of the new module(s) for teaching STEM that will be developed collaboratively between these local universities and a leading international university in STEM. These local universities will be directly selected since they offer both Mathematics and Science teacher education programs and are scattered WB&G to ensure geographic distribution of the services to be provided.



26. For Component 3, the procurement processes for all the procurable items identified under the eligible expenditures of the PBCs related activities (Annex 2) shall be carried out in accordance with the Bank's Procurement Regulations.

27. **Procurement Plan:** The MOE prepared a Procurement Plan for the first 18 months of the Project. The Procurement Plan was cleared by the Bank on February 15, 2022. The Procurement Plan will be updated in agreement with the World Bank team annually or as required to reflect the annual project implementation needs. The MOE will use the Bank's Systematic Tracking of Exchanges in Procurement (STEP) system, to prepare, clear, and update the Procurement Plans and to document procurement transactions.

Notes

¹ Palestinian Central Bureau of Statistics (PCBS), Palestine Expenditure and Consumption Survey (PECS), 2017/2018

² <https://www.iucn.org/sites/dev/files/import/downloads/palestine.pdf>

³ See, for example, Ferreira and Schady, 2009. "Aggregate Economic Shocks, Child Schooling, and Child Health" *World Bank Research Observer*; and Garg and Taraz, 2020. "Temperature and Human Capital in India." *Journal of the Association of Environmental and Resource Economists*.

⁴ <https://www.cyi.ac.cy/index.php/eewrc/eewrc-research-projects/climate-change-and-impact.html>

⁵ See, for example, Roth, 2017. "Air pollution, educational achievements, and human capital formation" *IZA World of Labor*; and Ebenstein, et al. 2016. "The long-run economic consequences of high-stakes examinations: Evidence from transitory variation in pollution." *American Economic Journal: Applied Economics*.

⁶ UNICEF, 2021. "The Climate Crisis is a Child Rights Crisis – Introducing the Children's Climate Risk Index."

⁷ Human Capital Index, 2020.

⁸ The expected years of schooling in the WB&G is estimated to be 11.9 years for boys and 12.5 for girls.

⁹ This refers to the 2019 pre-primary adjusted net enrollment rate (World Bank, 2020).

¹⁰ This refers to the 2019 primary and lower secondary total net enrollment rate (World Bank, 2020).

¹¹ This refers to the 2019 upper secondary total net enrollment rate (World Bank, 2020).

¹² Human Capital Index, 2020.

¹³ The learning-adjusted years of schooling stands at 7.6 years for boys and 8.5 years for girls in WB&G.

¹⁴ World Bank 2020. "Human Capital Index – West Bank and Gaza."

¹⁵ These refer to the 2017 and 2019 pre-primary adjusted net enrollment rate (Human Capital Index, 2020).

¹⁶ Early Grade Reading Barometer, based on the "with diacritics" test items. <https://earlygradereadingbarometer.org/results/West-Bank/2014/outcomes>

¹⁷ TIMSS 2011 is the most recent high-quality learning data available as WB&G has not participated in any international student assessment since.

¹⁸ Girls substantially outperformed boys in the mathematics, scoring on average 15 points higher on the TIMSS scale. The gender gap in the WB&G was the fifth largest of all countries participating in the mathematics assessment.

¹⁹ Mullis et al 2012. "TIMSS 2011 International Results in Mathematics."

²⁰ Martin et al 2012. "TIMSS 2011 International Results in Science."

²¹ Formal digital education classes for Palestinian students start in grade 5, later than for their peers in Organization for Economic Cooperation and Development (OECD) countries. The curriculum is mostly theoretical, and teachers tend to leave the practical application as homework due to poor digital infrastructure at schools. World Bank (forthcoming). "Digital Economy Assessment for the West Bank and Gaza."

²² Abualrob, Marwan and Said Al-Saadi. 2019. "Performance-Based Assessment: Approach and Obstacles by Higher- Elementary Science Teachers in Palestine". *Journal of Education and Learning*, 8: 198-206. [10.5539/jel.v8n2p198](https://doi.org/10.5539/jel.v8n2p198).

²³ Khlaif, Zuhair N. and Shahid Farid. 2018. "Transforming learning for the smart learning paradigm: lessons learned from the Palestinian initiative". *Smart Learning Environments*. 5:12 <https://doi.org/10.1186/s40561-018-0059-9>

²⁴ Wahbeh, Nader A. 2003. "Teaching and learning science in Palestine: dealing with the new Palestinian science curriculum". *Mediterranean Journal of Educational Studies*, 8(1): 135-159

²⁵ Harris, Christopher and Marx Ronald. 2014. "Teaching Practices That Matter in Middle School Science". *Science, Technology, & Mathematics (STEM)*, 83-87. Corwin Press. <https://doi.org/10.4135/9781483377544>

²⁶ Gustafson, Brenda and Dougal MacDonald. 2014. "Ideas About Designing Science Programs". *Science, Technology, & Mathematics (STEM)*" 108-11. Corwin Press. <https://doi.org/10.4135/9781483377544>

²⁷ Kasza, Paul and Timothy F. Slater. 2017. "A Survey of Best Practices And Key Learning Objectives For Successful Secondary School STEM Academy Settings". *Contemporary Issues in Education Research (Online)*, 10(1): 53-66. <http://dx.doi.org/10.19030/cier.v10i1.9880>

²⁸ Palestinian MOE 2019 Statistical Book.

²⁹ Led by the GIZ and with funding from the EU, the Swiss Development and Cooperation and the Norwegian Agency for Development Cooperation, the Belgian Technical Cooperation, ETF and ILO have long supported Work-Based Learning/Apprenticeship systems, short-term vocational trainings and entrepreneurship trainings. MOE has been working in close alignment with these donors in the following areas: (i) revision of the first ever Palestinian TVET Strategy developed in 2010, which set a framework for employment, national qualifications and a uniform TVET system; (ii) promoting early exposure to TVET to increase enrolment as laid out in the ESP (2017-2022) through career guidance and counseling in grades 7 to 10, (iii) ongoing technical and pedagogical training and qualification of TVET



teachers and in-company trainers for joint training of students in vocational schools, (iv) the development of a labor market information system in 2012 hosted by the Ministry of Labor, and (v) ongoing curriculum TVET reform. To address fragmentation, MOE is working with partners to revise the law governing TVET, so that an overarching regulatory body with decision making power to replace the deactivated Higher Council for TVET is established.

³⁰ Palestinian MOE 2019 Statistical Book.

³¹ Palestinian MOE 2019 Statistical Book.

³² Number of students who failed the Tawjih calculated as the average of students who failed the exam in the 2019, 2020, and 2021 according to MOE press releases.

³³ MOHESR Statistical Book, 2021.

³⁴ MOHESR Statistical Book, 2019

³⁵ World Bank 2019. "Jobs in West bank and Gaza – Enhancing Job Opportunities for Palestinians."

³⁶ Labor Force Survey, PCBS, 2020

³⁷ Labor Force Survey, PCBS, 2020

³⁸ World Bank (forthcoming). "Digital Economy Assessment for the West Bank and Gaza."

³⁹ As was the case in TIMSS 2011, in TIMSS 2023 WB&G is only participating in the 8th grade assessment, not in the 4th grade assessment.

⁴⁰ World Bank, European Union, and United Nations. 2021. "Gaza Rapid Damage and Needs Assessment - June 2021." Washington, DC: World Bank.

⁴¹ For example, the award-winning Teacher Education Improvement Project, which has reformed pre-service training of Grade 1-4 teachers in selected universities and provided in-service training to underqualified teachers. See Burke et al 2020. "Transforming Teacher Education in the West Bank and Gaza." World Bank Policy Research Working Paper 9328.

⁴² Previous support from development partners (particularly United States Agency for International Development (USAID)) resulted in the start of solid improvements to Arabic language programs in the early grades, but this work was cut short and did not reach its intended goals. Therefore, there is a need to build on these efforts to ensure that all schools offer an effective program for learning to read and other foundational skills in the early grades.

⁴³ Under Sector Goal 1 ('Ensuring safe, inclusive, and equitable access to education at all levels of the system'), the Ministry highlights the need to better balance enrollment between different educational tracks at the secondary education level.

⁴⁴ Under Sector Goal 2 ('Developing a student-centered teaching and learning pedagogy and environment'), the Ministry aims to "promote quality education which enhances creativity and knowledge and ensures acquisition of basic literacy skills, analytical skills and problem-solving skills".

⁴⁵ Under Sector Goal 3 ('Enhance Accountability and Results-Based Leadership, Governance and Management'), the Ministry pledges to shift "the ministry's inputs-based approach [to] a results- and accountability-based one".

⁴⁶ MOE Annual Budget, MOE, 2019

⁴⁷ <https://www.worldbank.org/en/region/mena/publication/advancing-arabic-language-teaching-and-learning-path-to-reducing-learning-poverty-in-the-middle-east-and-north-africa>.

⁴⁸ The MOE plans for the eSchool Platform (www.eschool.edu.ps) to form the main channel of communication between and among schools, students, and parents.

⁴⁹ Similar screening checks are used, for example, from the end of Grade 1 in England (<https://www.gov.uk/education/phonics>) and Australia (<https://education.nsw.gov.au/teaching-and-learning/curriculum/literacy-and-numeracy/assessment-resources/phonics-screening-check>).

⁵⁰ https://www.rand.org/content/dam/rand/pubs/research_reports/RR4200/RR4259/RAND_RR4259.pdf

⁵¹ In 2020, MOE issued a new procedural manual for school principals, which emphasizes creating a safe school environment including its physical and psychological dimensions as a main task for school principals.

⁵² The technical specifications of the adaptive learning program will follow six principles that stem from international experiences and research in implementing such programs:

- (i) *Target grade and subject:* During Phase 1, the program will be developed/adapted for mathematics—a subject where international experience on the effective use of adaptive learning is being accumulated—and will target Grade 5—a critical transition grade from lower primary to upper primary education, where variations in learning levels are particularly wide, and where these variations may potentially prevent weaker students from transitioning to the next level of education.
- (ii) *Curriculum mapping:* A careful mapping of the Palestinian Grade 5 mathematics curriculum will be conducted to ensure the curricular and contextual relevance of the program. The role of MOE's Curriculum Center in the development of the program will be critical in this regard.
- (iii) *Buy in:* The participation of teachers, principals, supervisors, and students throughout the design of the program will be pivotal to ensure teacher and student uptake and buy-in during implementation.
- (iv) *Training of teachers:* The adaptive learning program is not meant to replace teachers but enhance their role. As such, teachers will be trained on how to best use this program to support their students' needs.
- (v) *Digital infrastructure:* Where available, the program will leverage existing digital infrastructure of schools and students (e.g., PCs, laptops, and smartphones) to implement a high-tech adaptive learning package. Where the digital infrastructure is less developed, the program will implement a low-tech adaptive learning package.
- (vi) *Ecosystem:* The adaptive learning program will ensure coherence with all other elements of the STEM package and students' school day, and gradually be integrated into the school ecosystem.

⁵³ OECD, 2021. How Youth Explore, Experience and Think about Their Future. A New Look at Effective Career Guidance.

⁵⁴ The GTS includes three surveys – one for senior class students, one for graduates, and one for employers.

⁵⁵ WB&G has been one of three MENA countries participating in the field trial of a new measurement instrument for socioemotional skills. The instrument was developed under the Life Skills and Citizenship Education (LSCE), which has been spearheaded by UNICEF with support from the World Bank.



⁵⁶ The existing PCU is comprised of a Finance Manager-Acting PCU Director, a Finance and Operations Support Officer, a PCU Coordinator in Gaza, A compliance and ES officer in Gaza.

⁵⁷ The thematic groups are: (1) Life Skills and Wellbeing, (2) Inclusive Education, (3) Quality Education, (4) Early Childhood Education, (5) Education in Emergencies, (6) Infrastructure and Safe Environment, and (7) Jerusalem.

⁵⁸ <https://www.worldbank.org/en/news/infographic/2021/09/17/infographic-a-policy-package-to-promote-literacy-for-all-children>

⁵⁹ See, for example, UKRI 2014, OECD 2006.

⁶⁰ See, for example, Hanushek and Woessmann 2010.

⁶¹ Rizk, 2016. "Returns to Education: An Updated Comparison from Arab Countries." *Economic Research Forum, Working Paper 986*.

⁶² See, for example, Psacharopoulos and Patrinos 2018, Rizk 2016.

⁶³ See, for example, Brunello et al. 2016, Heckman et al. 2020, Lochner and Moretti 2004.

⁶⁴ Human Capital Index, 2020.

⁶⁵ Human Capital Index, 2020.

⁶⁶ Mullis et al 2012. "TIMSS 2011 International Results in Mathematics."

⁶⁷ Mullis et al 2012. "TIMSS 2011 International Results in Science."

⁶⁸ Palestinian Ministry of Education, 2020. General Administration of Measurement, Evaluation and Examinations. While learning is likely to be influenced by different socio-economic and vulnerability challenges, the different ways girls and boys learn and how the school environment/facilities/teaching tactics contribute to positive and constructive learning is unclear. This project will generate new, sex-disaggregated data on learning behaviors, which can shed light on drivers and factors behind gender gaps in learning outcomes.

⁶⁹ <https://www.aauw.org/app/uploads/2020/03/why-so-few-research.pdf>

⁷⁰ Ibid.

⁷¹ <https://www.aauw.org/resources/research/the-stem-gap/>

⁷² <https://documents1.worldbank.org/curated/en/977921537274068902/pdf/129981-WP-PUBLIC-Enhancing-Job-Opportunities-for-Skilled-Females-in-the-Palestinian-Territories-Final-Report.pdf>

⁷³ Data based on Ministry of Higher Education and Scientific Research 2020. "Annual Statistical Report for Palestinian Higher Education Institutions."

⁷⁴ Fariduddin, S. and S. Bukhari, 2011. Establishing a Gender Sensitive Career Counseling Service to Help Women Make Better Choices. International Labor Organization - Pakistan Office.

⁷⁵ These interventions are: (i) Tailored training for career guidance staff in girls' schools, to help enhance staff's capacity to support female students; (ii) Mentoring sessions to help overcome traditional expectations of labor force participation and pursuit of STEM fields of study. These sessions will tap into local female mentors and inspiring role models; (iii) Combatting education biases campaigns that target educators and school guidance staff to change the way STEM capabilities and prospects are communicated to female students. Relevant global examples on gender sensitive career counseling that support female students and graduates make better career choices, will be leveraged when designing such campaigns.; and (iv) Engaging families and communities to provide support and encouragement, and promote positive reinforcement.

⁷⁶ UNICEF, 2021. "The Climate Crisis is a Child Rights Crisis – Introducing the Children's Climate Risk Index."

⁷⁷ ADB, AIIB, EBRD, EIB, ISDB, NDB, and WBG. 2021. "2020 Joint Report on Multilateral Development Banks' Climate Finance."