



Report No: PIDIAF0078

Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 3-Oct-2024



BASIC DATA

A. Product Information

Main: Tonga Safe and Resilient Schools Project (P174434)

Operation ID	Product/Financing Instrument
P174434	Investment Project Financing (IPF)
Beneficiary Country/Countries	Geographical Identifier
Tonga	Tonga
Practice Area (Lead)	
Urban, Resilience and Land	
Borrower(s)	Implementing Agency
Kingdom of Tonga	Ministry of Education and Training

Additional Financing Request 2

Estimated Appraisal Date	Estimated Board Date
04-Oct-2024	05-Dec-2024

Development Objective

Original Development Objective (Approved as part of Approval package on 30-Mar-2022)

To: (i) enhance the safety and resilience of selected education facilities; (ii) improve the quality of data-driven education management, curricula and assessments in the selected educational programs; and (iii) in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.

Components

- Component 1: Improving Safety and Resilience of Education Facilities
- Component 2: Improving Learning and Teaching Conditions in Early Childhood, Primary and Secondary Education
- Component 3: Contingent Emergency Response Component
- Component 4: Project Management

COSTS & FINANCING (US\$, Millions)

SUMMARY



	Last Approved	Proposed	
		Addition	Total
Total Operation Cost	29.27	21.25	50.52
Total Financing	29.27	21.25	50.52
Of which IBRD/IDA	25.00	15.00	40.00

FINANCING DETAILS

World Bank Group Financing	Last Approved	Additional Financing	Total
International Development Association (IDA)	25.00	15.00	40.00
IDA Grant	25.00	15.00	40.00
Non-World Bank Group Financing			
Trust Funds	4.27	6.25	10.52
Global Partnership for Education Fund ^{NEW}	0.00	4.75	4.75
Papua New Guinea and Pacific Islands Umbrella Facility MDTF ^{NEW}	4.27	1.50	1.50

IDA Resources

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
National Performance-Based Allocations (PBA)	0.00	30.00	0.00	0.00	30.00
Crisis Response Window (CRW)	0.00	10.00	0.00	0.00	10.00
Total	0.00	40.00	0.00	0.00	40.00



A. Introduction and Context

Country Context

1. Tonga comprises 169 islands and is home to approximately 104,000 people. Tonga is one of the world's most exposed countries to climate change and natural disasters, due to the country's high exposure to extreme natural events and the high level of societal vulnerability. It is highly susceptible to the impacts of climate change and multiple disaster risks. The country's vulnerability is primarily due to its geographical isolation and geological and socio-economic characteristics, and consequently the multiple effects of climate change pose significant threats to infrastructure, resources and human health. This, coupled with its susceptibility to natural hazards and adverse weather events such as tropical cyclones, sea level rise, storm surges, drought, flooding and volcanic eruptions make the country vulnerable to current and future climate change events. Each of these hazards, bar volcanic eruptions, are being compounded by the impacts of climate change, resulting in the higher frequency and intensity of adverse events. Catastrophic risk modeling by the World Bank indicates that Tonga is expected to incur, on average, US\$15.5 million per year in losses due to earthquakes and tropical cyclones, and losses of up to 14 percent of GDP in years affected by specific disasters. In the next 50 years, Tonga has a 50 percent chance of experiencing a loss exceeding US\$175 million and casualties higher than 440 people, and a 10 percent chance of experiencing a loss exceeding US\$430 million and casualties higher than 1,700 people.
2. Tonga has experienced significant economic and natural disruptions in recent years. For example. Tropical Cyclone (TC) Gita, classified as a Category 4 storm, made landfall in Tonga on February 12, 2018. Its impact on the country's gross domestic product (GDP) was estimated to be around 38 percent. The landfall of TC Harold on April 9, 2020, caused substantial destruction and financial setbacks amounting to 12 percent of the country's GDP. A more recent catastrophe that profoundly affected the nation was the Hunga Tonga – Hunga Ha'apai (HT-HH) volcanic eruption of January 15, 2022, which was followed by ashfall and tsunami waves. The tsunami inflicted extensive destruction upon various sectors, including infrastructure, schools, buildings, roads, electricity and water supply networks, tourism facilities, livestock, and fisheries.

Sectoral and Institutional Context

3. **Schools in Tonga are exposed to a range of geophysical and hydrometeorological hazards**, including tropical cyclones and storms (rain and strong winds), tsunami, flooding (both coastal and inundation), liquefaction, landslide (both slope collapse and debris impact), and extreme heat, as well as seismic and volcanic events (both pyroclastic flow and ash fall). The impact of the HT-HH eruption and tsunami and Tropical Cyclone (TC) Gita in 2018 highlighted the vulnerability of school infrastructure in Tonga to climate and disaster hazards, and the need to improve the resilience of building stock in Tonga to avoid similar impacts to education facilities in the future. In particular, school buildings were affected disproportionately by TC Gita, with 75 percent of the 150 schools on the main island of Tongatapu damaged, compared to 25 percent of all residential buildings. In response to these events, the Government of Tonga (GOT) has committed significant resources to reconstruct and strengthen Tonga's school building portfolio; however, significantly more investment is needed to enhance the safety, structural adequacy and basic sanitary requirements in accordance with the Tonga National Building Code and associated Australian and New Zealand Standards.
4. **The most critical issues currently observed in Tonga's education system include limited access to early childhood education (ECE) and the low quality of primary and secondary education.** Despite recent increase in access, nearly two third of ECE-aged Tongan children are out of preschools. Supply-side constraints include insufficient number of preschools in certain areas of the country (e.g., outer islands – around 2/3 of ECE schools are in Tongatapu), lack of



resources for play-based teaching and learning, lack of resources for teaching children with special education needs, and low qualification of teachers. On the demand-side, parents of young children lack information on the returns to, and importance of, ECE. Less than half of Grade 4 students and less than one third of Grade 6 students are reaching the minimum levels of literacy proficiency according to the results of the 2021 Pacific Islands Literacy and Numeracy Assessment (PILNA). Moreover, teaching and learning conditions are suboptimal. A recent observation of secondary education teachers conducted by the World Bank unveiled that support is needed for teachers to adjust their practices to match their students' level of understanding. Teachers scored low in key pedagogical practices such as checks for understanding, critical thinking, and providing students with effective feedback. Primary and secondary schools lack equipment, including for teaching science and ICT.

C. Proposed Development Objective(s)

Original PDO

i) to enhance the safety and resilience of selected education facilities; and (ii) to improve the quality of data-driven education management, curricula and assessments in the selected educational programs.

Current PDO

To: (i) enhance the safety and resilience of selected education facilities; (ii) improve the quality of data-driven education management, curricula and assessments in the selected educational programs; and (iii) in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.

Key Results

5. The PDO will be measured by the following PDO level indicators:
 - a) Targeted education facilities constructed or strengthened to improved performance levels to one or more natural hazards;
 - b) Direct beneficiaries with increased safety from new and strengthened education facilities (disaggregated by gender);
 - c) Primary and secondary education schools using the EMIS including data on learning assessments; and
 - d) Primary and secondary education teachers delivering the revised curricula in classrooms

D. Project Description

6. The AF will scale up Components 1, Component 2 and Component 4 and add new activities to Component 2. The PDO will remain unchanged.
7. **Component 1. Improving Safety and Resilience of Education Facilities.** The AF will support activities under both subcomponents of the Parent Project. There are no changes to the project activities for Component 1, with the AF providing financing to scale up existing activities under both sub-components, as follows. The cost of this Component will increase from US\$22.27 million to US\$36.27 million, and as with the original project, would reach beneficiaries across the whole of Tonga.
8. **Sub-Component 1.1: Resilient Infrastructure Investments (US\$14.0 million).** *The AF will finance a scale up of resilience building in school infrastructure across Tonga.* This will include an increase in beneficiaries from 6,000 to 8,000 and deliver works for a further 20 school facilities across Tonga. Activities supported by the AF will include:
 - i. Civil works to strengthen the climate and disaster resilience of schools, including: (a) construction of new Approved Education Facilities which are more resilient to climate⁴ and seismic events; (b) retrofit and strengthen existing Approved Education Facilities to be more climate resilient; and (c) undertake minor repair



and maintenance works to strengthen climate resilience. Support may also be provided for the operation of the Approved Education Facilities, including through the purchase and distribution of teaching and learning materials, equipment, and furniture. Investment eligibility and prioritization will follow the risk-based approach of the Parent Project, as outlined in the Parent Project and detailed in the POM.

- ii. Detailed building-level structural condition assessments, geotechnical and other site investigations, feasibility design studies, investment planning, detailed engineering designs (incorporating renewable energy (solar), site layout to maximize passive cooling, and multi-hazard resilience measures to site-specific exposures to seismic and climate hazards such as tropical cyclones, storms and flooding), construction supervision and quality assurance, and monitoring of the contractors' environmental and social management plans.
9. **Sub-component 1.2: Strengthening Education Infrastructure Planning and Maintenance (US\$0.5 million).** The AF will finance the scale up of technical assistance and support implementation of the Operation and Maintenance program and improved asset management practices in an increased number of schools.
10. **Component 2. Establishment of EMIS and Improved Quality of Curricula and Assessments.** The title of this component would be revised to *"Improving Learning and Teaching Conditions in Early Childhood, Primary and Secondary Education"* to better reflect the activities to be supported through this AF. The cost of this Component will increase from US\$4.5 million to around US\$10.6 million through the addition of Sub-components 2.3 and 2.4, as summarized below; see Annex 1 for more detailed information on these sub-components.
11. **Subcomponent 2.1: Establishment of a Comprehensive Education Management Information System (EMIS).** This subcomponent won't change through this AF. It has been supporting the development and implementation of Tonga's EMIS and the enhancement of the capacity of MET's staff, as well as school principals and teachers to use this system.
12. **Subcomponent 2.2: Upgrading of Curricula and Assessments.** This subcomponent won't change through this AF. It has been supporting (a) the revision of the national curricula for core subjects and class levels 1 to 6, (b) the revision and production of teaching and learning materials in alignment with the revised curricula, (c) the training of teachers in the revised curricula.
13. **Sub-component 2.3: Supporting Quality Primary and Secondary Education (US\$3.97 million).**
 - i. **Curricula revision.** Technical assistance for the revision of the curricula for eight core subjects would be financed in addition to the (a) development and production of teaching and learning materials in alignment with the revised curricula, (b) training of teachers in the revised curricula, and (c) compensation of a small team of local specialists to ensure that the revision is sensitive to the country context.
 - ii. **Assessment of learning outcomes.** Technical assistance for the improvement of the existing high-stake secondary education examination in alignment with the revised curricula and international good practices.
 - iii. **Professional development (PD) of teachers.** Development and implementation of an in-service program for the PD of primary and secondary education teachers and their coaching, including: (a) observations of teachers in classrooms by using an adapted version of the Teach classroom observation tool; (b) development of training materials to address the areas for improvement as identified by the classroom observations; (c) training of teachers to address these areas for improvement; and (d) parallel coaching of teachers to improve their teaching practices throughout the school year. Training materials for utilization in this program would include messages and information to help prevent the issue on the corporal punishment of students by their teachers. It would also support technical assistance for the review of the existing pre-service program for teacher PD considering the revised curricula and international good practices. Training activities would equip



teachers with information and practices on how to (a) guide students on the adequate level of utilization of education technologies for learning, and (b) promote students' wellbeing and mental health.

- iv. **Students counseling.** Design and implementation of a counseling program to help address selected critical social and gender-related issues currently observed in Tonga that affect its education system directly or indirectly. The issues to be addressed through the counseling program should be clearly defined in the Project Operations Manual and including gender-based violence (GBV), early marriage or pregnancy, sexual harassment, and corporal punishment of students by their teachers. Activities to be supported would include technical assistance for designing the program, trainings, as well as its operating costs over three years of implementation. This program would also promote students' wellbeing and mental health embedded in the services to be provided.
- v. **Communication campaigns.** Design and implementation of campaigns to: (a) prevent vandalism in schools; (b) avoid the corporal punishment of students by their teachers; and (c) enhance students' climate consciousness.

14. **Sub-component 2.4 – Improving Learning and Teaching Conditions (US\$2.095 million).** This sub-component will support the improvement of teaching and learning conditions in preschools, as well as primary and secondary education schools through the provision of equipment and teaching and learning resources as detailed below.

i. **Improvement of the teaching conditions in middle and high schools:**

- a) The establishment of science corners⁶ in 20 government primary schools that offer Forms 1 and 2 (middle schools), as well as science laboratories in all seven government high schools nationwide and eight non-government high schools (one per existing system) in Tongatapu. This activity aims to address the issue on inadequate pedagogical practices in science classes that is reflected in poor examination results.
- b) **Teaching of ICT in high schools.** Financing of equipment for ICT teaching in all seven government high schools nationwide and eight non-government high schools in Tongatapu, as well as purchase and distribution of air conditioners for the 15 beneficiary high schools and data packages for Internet access in these high schools. High and middle (see activity below) schools currently lack ICT equipment for adequate teaching and learning, as evidenced during school visits carried out during the preparation of this AF.
- c) **Teaching of ICT in middle schools.** Financing of ICT equipment such as laptops and projectors for teaching and learning in 32 government middle schools in Tongatapu.

- ii. **Improvement of teaching conditions in preschools.** This activity would support the purchase and distribution of outdoor playground equipment, as well as indoor play zones and teaching and learning resources to 46 primary government schools that deliver the first year of ECE across the country. While play-based teaching and learning practices are known to be highly effective and stimulating for preschool aged learners, Tongan ECE schools face a shortage of play-based teaching and learning materials, which this activity will help address.

15. **Component 3: Contingent Emergency Response.** IDA financing from the AF could be used for CERC activities, subject to an eligible crisis or emergency. There would be no change in scope compared to the Parent Project. In the event of CERC activation, a Paris Alignment assessment will be conducted on specific activities to be financed by the CERC, to ensure that such activities are aligned with the goals of the Paris Agreement on both mitigation and adaptation.



16. Component 4: Project Management (US\$1.18 million) will finance additional Project Management costs associated with the scale up of activities under Component 1 and Component 2 and the extended project duration. This will include provision for additional fiduciary and technical consultants to be added to the PMU to provide technical and operational support (i.e., additional engineering resources to support Component 1 and an Education Assistant to support Component 2, as well an additional Finance Officer to support the overall project).

17. Results Framework. The Results Framework (RF) indicators and results will be revised to reflect: (i) additional indicators which align with the World Bank Corporate Scorecard; (ii) the scale up of activities under Component 1 and Component 2; (iii) the new activities under Component 2; (iv) the delivery of results over the increased duration of the Project, given the extension of the closing date by two years; and (v) to align the Monitoring and Evaluation (M&E) for the RF with the Tongan Financial Year.

18. Implementation Arrangements. No changes are proposed to the implementing arrangements of the Parent Project.

19. Financing. The current and revised component costs as a result of the proposed AF are shown in the table below.

Table 1: Project Costs and Financing by Component

	TSRSP Original Financing (US\$M)	1 st TSRSP Additional Finance (US\$M)			2 nd TSRSP Additional Finance (US\$M)				TSRSP Total (US\$M)
	(US\$M equivalent)	CRW	PPIUF	1 st AF Total	IDA	GPE	PPIUF	2 nd AF Total	
1	8.7	9.0	4.27	13.27	14.0	-	-	14.0	35.97
1.1	8.5	8.7	4.27	12.97	13.5	-	-	-	
1.2	0.2	0.3	-	0.5	0.5	-	-	-	
2	4.8	-	-	-	-	4.57	1.5	6.07	10.87
2.1	3.0	-	-	-	-	-	-	-	
2.2	1.8	-	-	-	-	-	-	-	
2.3	-	-	-	-	-	2.73	1.24	3.97	
2.4	-	-	-	-	-	1.84	0.26	2.10	
3	-	-	-	-	-	-	-	-	-
4	1.5	1.0	0.0	1.0	1	0.18	0.0	1.18	3.68
Totals	15.0	10	4.27	14.27	15.0	4.75	1.5	21.25	50.52

20. Closing Date. The closing date for the project will be extended from September 30, 2027 to September 30, 2029. The IDA financing and PPIUF for the Parent Project, the first AF, and the proposed Second AF will reflect a closing date of September 30, 2029, to enable all activities to be completed and the targets of the revised RF to be achieved. The closing date for the GPE will be September 30, 2028, to reflect the usual GPE grant implementation timeline of four years.



Legal Operational Policies

Triggered?

Projects on International Waterways OP 7.50

No

Projects in Disputed Areas OP 7.60

No

Summary of Screening of Environmental and Social Risks and Impacts

The environmental and social risks for the Parent Project and the AF are assessed to be moderate, given risks and impacts are not likely to be significant, large or complex and are expected to be predictable, temporary and reversible. Key environmental and social risks in relation to the small scale civil works under Component 1 are standard for works of these type and scale and remain unchanged from the Parent Project. They will continue to be addressed via the E&S instruments prepared under the Parent Project including the: Environmental and Social Commitment Plan (ESCP), Environmental and Social Management Plan (ESMP), Labor Management Procedures (LMP), and Stakeholder Engagement Plan (SEP) which includes a grievance redress mechanism. Activities under sub-component 2.3. and 2.4 through the AF relating to the improvement of teaching conditions including TA activities and the procurement of science equipment and ICT equipment, air conditioning units and outdoor play equipment will require end-of life waste management and may generate safety risks relating to equipment installation/assembly. These risks have been addressed via update of the ESMP to include relevant mitigations. There are sporadic instances of corporal punishment in Tongan schools which present a risk to student beneficiaries which will managed through activities under Component 2.3.



Environmental Risk Rating: Moderate

21. The Environmental Risk for both the Parent Project and the AF is considered Moderate given risks and impacts are not likely to be significant, large or complex and are expected to be predictable, temporary and reversible. Risks are expected to be site specific with low probability of serious adverse effects to human health or the environment and easily mitigated in a predictable manner. The AF will fund a scale up of works under the Parent Project. Under component 1 the AF will fund construction of new approved education facilities, retrofitting of existing facilities and minor repair and maintenance work. Given the AF provides funding for a greater number of schools to be included rather than new scope under component 1, environmental risks are unchanged from the parent project and will be managed via the same risk management approaches. Under component 2 scale up activities related to improvement of teaching conditions include procurement of science equipment, ICT equipment, air conditioning units and outdoor play equipment which will require end-of life waste management and may generate safety risks relating to equipment installation/assembly. An Environmental and Social Management Plan (ESMP) was prepared, disclosed and adopted under the Parent Project and has been updated to assess minor additional environmental risks associated with component 2 activity scale up. The ESMP notes that key risks for civil works under component 1 include hazardous materials management (including potentially asbestos and lead), sourcing of construction materials from unsustainable sources, OHS risk, air quality impacts due to dust, noise impacts, construction waste management, soil and erosion management during construction and loss of vegetation through site clearing. Operational risks associated with the construction/ refurbishment of school facilities include management of operational waste and potentially fire safety risk. The school based operation and maintenance (O&M) training and capacity building program has potential to create OHS risk to community members during hands-on training activities and ongoing maintenance activities with the management of waste potentially required. Technical Advisory (TA) activities proposed for the project under Components 1&2 are designed to strengthen MET's capacity and improve the quality of curricula and assessments in Tongan schools. The risk of downstream impacts is considered low given the nature of TA activities, the positive outcomes and the long-term engagement between the World Bank and MET. The above risks remain the same for the AF. Procurement of science equipment and ICT equipment, air conditioning units and outdoor play equipment under component 2 has potential to generate health and safety risks for workers, students and teachers and to generate downstream waste including e-waste.

Social Risk Rating: Moderate

22. Social Risk for both the Parent Project and the AF is Moderate, given that risks and impacts are not likely to be significant, large or complex and are expected to be predictable, temporary and reversible. Risks are expected to be easily mitigated in a predictable manner. No closure of schools, nor relocation of students is expected during building and upgrade activities, and the works are not expected to impact educational services. Minor temporary relocations may occur to other buildings/facilities within the site, however, activities will be staged to minimize impacts to educational services. The overall social impact of the Project is expected be positive with improved access to education, improved education systems and teaching standards, more resilient public sector buildings with potential emergency/ evacuation centers and water and sanitation hygiene (WASH) facilities included in the outcomes. Given that activities through the AF under Component 1 largely involve scale up of existing activities, social risks under Component 1 remain unchanged. Key social risks include: (i) Community health and safety due to interactions with construction workers and construction equipment; (ii) Exposure of workers and building occupants (including school aged children) to potentially hazardous materials such as disturbed asbestos, and



dangerous activities, such as machinery, before and during demolition and or construction/rehabilitation activities; (iii) Child safety and impacts to the school community due to the proximity of workers to school children and school staff; (iv) Impacts of construction impacts such as noise, dust or vibration v) Minor impacts to community or livelihoods due to restricted or temporarily reduced access to sites and regular travel routes; vi) Risks to vulnerable groups (poor, disabled, elderly, isolated or ethnic groups) as a result of construction activities and the movement of people; vii) Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) risks during construction; viii) potential impacts to land, or access to land, during construction and operation of works, ix) failure to provide adequate information and involvement in decision-making about the impacts of the activities on students and families. These impacts are considered temporary and will be subject to standard accepted mitigation measures to be implemented by the contractor. The possible need for temporary access to nearby land for lay down and construction facilities will be assessed on a case by case basis. If temporary land use is required as a result of laydowns or compounds, an MOU or lease agreement will be developed. Procurement of school equipment under sub-components 2.3 and 2.4 have the potential to generate relate to social risks. There are also sporadic instances of corporal punishment in government schools in Tonga by teachers of students, and activities are included under the AF to address risks associated with corporal punishment.

Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) Risk Rating: Low

23. SEA/SH risks for the parent project and the AF have been assessed as Low and will be addressed and mitigated through standard measures outlined in E&S instruments including the ESCP, ESMP and SEP. The Grievance Redress Mechanism (GRM) will include referral pathways for grievances related to SEA/SH. The project will continue to engage with the Women and Children Crisis Centre (WCCC), key GBV service provider in Tonga, for the management of project-specific SEA/SH risks. MET has committed in the ESCP to the implementation of a workers Code of Conduct (CoC) for the parent project and AF which includes provisions for SEA/SH prevention. The CoC, SEA/SH training and provision of a GRM with referral pathways for SEA/SH-related grievances are as mitigation measures in the ESMP and LMP.

E. Implementation

Institutional and Implementation Arrangements

24. There are no significant proposed changes to the implementation arrangements.

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Borrower/Client/Recipient

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Implementing Agencies

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APPROVAL

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Approved By

Practice Manager/Manager:	Bjorn Philipp	September 23, 2024
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