VESP

VANUATU EDUCATION SUPPORT PROGRAM

Assessing the impact of COVID-19 on education in Vanuatu

May 2023







Vanuatu Education Support Program is managed by Tetra Tech International Development, on behalf of the Australian Government

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Table of Contents

Exec	utive s	summary4
1	Purpo	ose6
2	Back	ground6
3	Impa	cts on education from COVID-198
	3.1	Global impacts
	3.2	Vanuatu9
4	Supp	ort provided to schools11
	4.1	The Vanuatu Australia School Community Grant11
	4.2	Other support to schools11
5	Metho	odology12
	5.1	Descriptive Statistical Presentation12
	5.2	Financial Data Analysis12
	5.3	Phone Survey
	5.4	Case Studies
	5.5	Regression Analysis
	5.6	Limitations15
6	Findi	ngs 16
	6.1	Descriptive Statistics
	6.2	Financial data19
		6.2.1 Primary Schools 19 6.2.2 Secondary Schools 21
	6.3	Phone Survey & Case Studies
		6.3.1 Overall impact

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Refe	rence	S	78
Conc	lusio	ns	31
	6.4	Regression Analysis	29
		6.3.4 The Vanuatu Australia School Community Grant	27
		6.3.3 Support provided by the MoET and other authorities	27
		6.3.2 Impact of lockdown in March 2022	25

Annexes

- Annexe 1 Posters of Vanuatu Australia School Community Grant and School Grant Program
- Annexe 2 Detailed Phone Survey Results
- Annexe 3 Detailed case studies
- Annexe 4 Detailed breakdown of financial data
- Annexe 5 Econometric specification
- Annexe 6 Detailed regression analysis
- Annexe 7 Descriptive Statistics by year and TC Harold affected area
- Annexe 8 Pooled OLS Model on the Determinants of Student's Academic Performance

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Abbreviations

COVID-19	Coronavirus Disease of 2019
DFAT	Department of Foreign Affairs and Trade
EAP	East Asia–Pacific
ECCE	Early childhood care and education
GDP	Gross domestic product
GER	Gross enrolment rates
GPS	Global Positioning System
ICT	Information and communication technology
MoET	Ministry of Education and Training
NER	Net enrolment rates
OLS	Ordinary least squares
OV	Open Vanuatu Education Management and Information System (VEMIS)
PILNA	Pacific Islands Literacy and Numeracy Assessment
тс	Tropical Cyclone
VANSTA	Vanuatu Standardised Tests of Achievement
VASCG	Vanuatu Australia School Community Grant
VESP	Vanuatu Education Support Program

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Executive summary

The Coronavirus Disease of 2019 (COVID-19) has been devastating for education in low and middleincome countries around the world. The number of 10-year-old children in low and middle-income countries who cannot read a simple text with comprehension has risen from 57% in 2019 to 70% in 2022. Educational inequality has also widened, both between and within countries.

This report is an initial study of COVID-19's impact on education in Vanuatu, focusing on the period March 2020 until June 2022. Understanding this impact in Vanuatu is complex, due to **several mitigating factors**. These include remaining **COVID-19 free for a comparatively long time** and a **generous education support package** from the government. Part of this support include the Vanuatu Australia School Community Grant (VASCG) – a grant to primary schools, which aimed to provide an economic boost to the local community, to meet a school need outlined in the School Improvement Plan and to encourage the use of locally available resources.

This report uses a mix-method approach to explore the pandemic's impact on Vanuatu's education. It begins with a descriptive analysis of the available statistics. This is followed by analysis of school's financial data, a phone survey and six case studies, and concludes with a regression analysis of assessment scores.

The main descriptive statistic which is used is the VANSTA exams. Across all nine VANSTA exams there was a fall in the proportion of students meeting or exceeding the minimum standard from 2019 to 2021, with an average fall of 12%.¹ The most concerning results are Year 4 Literacy, with just 44% of English students and 47% of French students meeting the minimum standard for this age group. By contrast, numeracy scores held up relatively well.

Due to difficulties contacting schools, only 41 schools out of the planned sample of 100 schools, were successfully contacted. The phone survey results indicated several definitive trends, including: schools finding the past two years highly challenging, the limited effectiveness of remote learning measures during lockdown and the presence of some mitigating factors, such as government support.

This was complemented by six in-depth case studies with schools in Santo based on interviews with principals, teachers, students, and parents. All these schools said that delivering education was substantially more difficult due to the pandemic and Tropical Cyclone (TC) Harold. Schools clearly indicated that students learnt very little from home schooling during the 2022 lockdown. They also feared inequality in learning had widened during this period. Schools are still recovering from TC Harold and a rapid acceleration of the rebuilding of schools is required.

Across both the phone survey and the case studies it was clear that the support from the Governments of Vanuatu and Australia has been crucial in helping schools during the period under examination. The VASCG was instrumental in helping primary schools to recover lost income, particularly with contributions from students falling. This increase in income in 2021 led to **an increase in spending on development (up 138% from 2020 to 2021), education supplies (25%), and operations and maintenance (54%).** The phone survey and the case studies revealed that schools were **highly complimentary of VASCG. 94% of phone survey respondents described VASCG as very helpful**. The mechanism was relatively straightforward and easy to rollout, overall suggesting a successful intervention – albeit it is too soon to see if it will impact long-term learning outcomes.

Meanwhile, participants in the case studies said the grant helped with ensuring student attendance, rebuilding after the cyclone and developing learning materials. The VASCG was accompanied by

¹ This is an unweighted average

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

other assistance packages, including school and exam fees support and online learning modules. Survey findings indicate the financial support packages were considered highly useful while the home support packages were seen as having lesser value to schools.

The final methodology was an econometric regression that estimated the impact of COVID-19, and TC Harold on education. The results should be treated cautiously due to methodological limitations. Still, they suggest that **approximately an additional 4% of children failed to meet VANSTA minimum standard in 2021 than one would have expected from previous data**, showing the possible impact of the pandemic. A further 1% were estimated to have failed due to TC Harold. As all of these findings are for 2021, they do not include the impacts of the 2022 community outbreak, meaning they could substantially underestimate COVID-19's impact.

Delivering education in Vanuatu has been highly challenging for the past two and a half years. Learning outcomes have fallen and schools and authorities have faced numerous pandemicassociated challenges. It is likely the pandemic will continue to adversely impact education for years to come. Authorities should continue to monitor these impacts to ensure there are adequate plans to help children catch up. Understanding COVID-19's impacts is particularly important as this is a critical decade for Vanuatu, with the country experiencing challenges including a fast-growing school-aged population, an ever-worsening climate crisis which creates an urgent need for sustainable development, and exponential technological change. The pandemic has made this already highly difficult task of delivering sufficiently quality education even more challenging. The Global Learning Poverty Report suggest that the pandemic should be used as a springboard to address the most fundamental challenges in education and to examine the systems of education. Given the broader context, this is an something which authorities in Vanuatu should deeply consider, to ensure that the fundamentals of the education system are both sustainable and suitable the country's future needs.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

1 Purpose

This study is to support decision makers at the Vanuatu Ministry of Education and Training (MoET) and the Australian Department of Foreign Affairs and Trade (DFAT) better understand the impact of COVID-19 on school communities and how effectively the Vanuatu Australia School Community Grants (VASCG) scheme supported communities' continued participation in education. For the purpose of this study, it is understood that even though there was no community transmission of COVID-19 until March 2022, there were still a number of mechanisms which may have impacted on education before this. This report therefore looks at the period from March 2020 until June 2022, when the phone survey/case studies occurred.

This report begins by looking at the wider context before discussing COVID-19's impacts on education. This discussion includes the role played by TC Harold. Next it looks at the high-level descriptive statistics to understand the changes to outcomes and outputs over the past 2 years. The report then presents the findings of a phone survey targeting school principals, which provides a range of high-level feedback. This is complemented by six in-depth case studies. Finally, the report provides an econometric regression analysis that examines the impact of COVID-19 and other factors on learning outcomes in Vanuatu.

This report acknowledges that it is dealing with a highly complex issue. This report recognises that COVID-19 will potentially impact education for many years to come, and this report does not seek to consider the long-term impacts.

2 Background

The World Health Organization declared on 11 March 2020 that the COVID 19 outbreak was a pandemic. Twelve days later Vanuatu closed its borders. In the immediate aftermath of this decision, Vanuatu experienced widespread uncertainty and confusion, with most of the country going into a semi-lockdown while waiting to discover if COVID-19 was present in the community. Schools in Sanma, Shefa, and Tafea closed on 23 March 2020, and on the same day MoET published its COVID-19 contingency plan. The Government then declared a state of emergency on March 26th,² and schools in the other three provinces (Malampa, Penama, Torba) closed on 1 April 2020.

On 6 April 2020, Vanuatu faced another disaster: Category 5 TC Harold. The cyclone had a maximum speed of 270 kph and impacted 129,000 people, 52% of the population. Large parts of Santo, Pentecost, and Malo were heavily damaged. The total cost of the storm's devastation was estimated to be VUV 68 billion, approximately 61% of the gross domestic product (GDP). This was just 5 years after Category 5 TC Pam inflicted estimated damage equivalent to 64% of GDP.

There was no community transmission of COVID-19 until early March 2022. As a result, all schools initially reopened on 18 May 2020, on the condition they had good hygiene and hand washing practices.³ The period represented just under 2 months of lost learning. Schools were then able to deliver education relatively uninterrupted until March 2022. However, the economic impact of the COVID-19 related border closures and the slowing global economy affected many families and communities across the country.

On 5 March 2022 it was announced that Vanuatu had community transmission of COVID-19, with the government announcing the immediate closure of schools. At this point, approximately 70% of adults

² https://www.dailypost.vu/news/press-release-from-the-office-of-the-prime-minister-on-the-state-of-emergency-declared/article_16e09d2a-6fae-11ea-bc5a-4b36f13c3118.html

³ https://www.dailypost.vu/news/schools-to-reopen-on-monday/article_cfa93a5c-988e-11ea-83d7-ef516c7acc10.html

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

had received at least one vaccine. This vaccination rate was a core contributing factor in limiting COVID-19's health impacts, with fewer than 20 deaths officially attributed to the virus by November 2022, despite widespread transmission.⁴

The modest impact of the pandemic enabled Vanuatu to begin relaxing domestic restrictions relatively quickly compared to many other countries. Efate and Offshore islands were able to reopen on 22 April 2022⁵ and Sanma on 6 May 2022. This was contingent on schools having Standard Operating Procedures (SOPs) approved by the Ministry of Education and Training (hand washing, social distancing etc.). Many schools lacked these SOPs and experienced delays in reopening as they developed them.

This lack of procedures resulted in schools facing a longer closure period than almost all other institutions, such as businesses and health service providers. Other schools were allowed to reopen on 8 April, but many remained closed for an extended period. ⁶ Most of the islands reverted to varying degrees of restrictions when COVID-19 reached them. Given the inconsistency of school and island closures and openings, school disruptions have varied across the country. By 23 May 2022, all schools were open and delivering education with COVID-19 measures in place. On 1 July 2022, Vanuatu reopened its borders for international quarantine-free travel.

It is also vital to consider the broader context, so as to begin to consider the longer-term impact of the pandemic. The 2020s are a crucial decade for delivering quality education within Vanuatu. The first driver of this is the climate crisis. The Pacific Island Forum's 2018 Boe Declaration states that climate change is 'the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific'. According to the Intergovernmental Panel on Climate Change 'There is a rapidly narrowing window of opportunity to enable climate resilient development.' Given education's fundamental role in development, there is therefore a clear and urgent need to ensure Vanuatu's youngest generations receive the education required to achieve sustainable development. This need is further exacerbated by other major changes happening in the world, including increasingly rapid technological change. Any short-term impact on education from COVID-19 could therefore have major long-term ramifications for Vanuatu.

At the same time, the education system is coming under increasing strain from internal factors. Much of the infrastructure was built around the period of independence and is now in an increasingly poor state – exacerbated by TC Harold. The Vanuatu Infrastructure Strategic Investment Plan estimated the cost for rehabilitation of all secondary schools to be USD \$59 million (VUV 7 billion) in 2015. The TC Harold Post-Disaster Needs Assessment put the total damage to buildings at VUV 6.3 billion, with total recovery needs at VUV 11.8 billion (USD 107 million). The system is also facing significant demographic pressures from a growing population, with 44% more children aged 0-4 than young adults aged 15-19. These structural pressures would have persisted regardless of the pandemic, but COVID-19 has made responding to these challenges even harder.

⁴ The Ministry of Health undertook a cross-sectional bio-behavioural COVID-19 prevalence study in Port Vila approximately a month after the first locally acquired case was detected with 56% of participants confirmed positive.

⁵ https://www.dailypost.vu/news/curfew-lifted/article_36153ed6-ef18-5a70-a840-9556ec591bbe.html

⁶ https://www.dailypost.vu/news/alert-level-3-reduced-for-covid-free-provinces/article_d89aa1fd-21b1-5908-818a-e95f0ac67ee4.html

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

3 Impacts on education from COVID-19

3.1 Global impacts

Even before COVID-19, the world was experiencing a learning crisis. In 2019, the Learning Poverty rate in low and middle-income countries was 57%, meaning that over half of all 10-year-old children could not read a simple text (World Bank, 2022). It is estimated this is now 70%, with education systems being fully closed for in-person schooling for an average of 141 days.⁷ Learning poverty (being unable to read and understand a simple text by age 10) in the East Asia–Pacific (EAP) region has likely increased by 10 percentage points to 45%.⁸ While most countries attempted to substitute inperson learning, '*evidence is accumulating that the capacity of these remote learning efforts to substitute for in-person learning is very low*' (World Bank, 2022, p8).

The pandemic affected children's health and socio-emotional wellbeing, with children from the poorest families worst hit (OECD, 2020). This was part of a wider picture of COVID-19 exacerbating existing inequalities (World Bank, 2022), including the digital divide between students with and without access to appropriate materials (Mathrani et al. 2022).

Women were most affected by COVID-19's impacts, particularly regarding job losses, increased domestic burden and domestic violence (Connell, 2021; Connell and Taulealo, 2021, Terauds, 2022). The pandemic-related global economic contraction negatively impacted family incomes and increased the risk of school dropouts (World Bank, 2021). In some developing countries, such dropouts were more likely in the higher (secondary) age groups and among girls, who were more likely to be pushed into the labour market and towards child marriage (Kidman et al. 2022; Aidoo 2020). This is also true in the EAP region, where secondary level students are more likely to be affected by school closures with higher dropout rates. According to a 2020 UNESCO report, student completion rates in the Asia-Pacific region were predicted to fall to 76% (UNESCO 2020).

School closures due to COVID-19 also tended to cause confusion and stress among teachers. Teachers were uncertain about their obligations and unsure how to maintain connections with students to support learning (UNESCO n.d). Many also struggled with the digital requirements of supporting online learning (UNESCO, 2020) due to their weak information technology skills and lack of training in supporting this type of learning (UNESCO, 2022). Little regional research has been conducted directly with teachers to study impact. A rapid survey from Timor-Leste found some teachers feared meeting with children while others thought they still needed to attend school despite the absence of children (MEYS, 2021).

Parents and caregivers were also affected, not only by economic factors but also by the pressure of supporting their children's home learning. While there have been few regional studies, some evidence suggests that parents had mixed reactions to home learning. Apart from the above-mentioned economic worries, some parents feared the effects of COVID-19, while others had limited knowledge about the virus and its spread.

Many countries tried to implement distance learning through home-study packages and other information and communication technology (ICT) approaches. Generally, the divide in student participation was significant in the region, with students from higher socioeconomic classes more likely to take advantage of opportunities offered, regardless of whether these were ICT or print based (UNESCO, 2020).

⁷ The impacts were particularly large in South Asia, and Latin America & the Caribbean, which faced particularly long school closures of 273 and 225 full days on average respectively

⁸ There is no data for Vanuatu in this dataset

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Older secondary school age children are more likely to drop out – either attracted by the prospect of earning money or pursuing an emotional relationship. There is little research on this phenomenon in boarding schools, except in some European countries where education tends to continue. According to anecdotal information from Fiji, significant differences exist between boarding schools. This unconfirmed evidence suggests that at some boarding schools, children were stuck with insufficient teachers while students at other boarding schools had gone home, leaving the school deserted.

3.2 Vanuatu

The period under examination is from March 2020 until June 2022. It therefore includes the period of almost two-years when borders were closed but there was no community transmission. Even though there was no outbreak of the disease, there are still numerous ways in which COVID-19 could have impacted education during this initial period. These include, but are not limited to:

- All schools were closed for extended periods (some for up to five months), disrupting learning. The initial closure in March 2020 was for approximately two months, with the second closure in March 2022 being up to three months.
- MoET, school leaders, teachers, donors and other key players and stakeholders were extremely busy responding to COVID-19 and TC Harold. This refocused priorities to responding to these emergencies, and therefore reduced the resources available for improving and reforming education.
- The pandemic also increased the cost of many goods and services and reduced access to others. This makes operating schools more difficult and costly.
- Many families faced disruption, which given the importance of the home environment on learning on education, could have impacted education. Some possible mechanisms include:
 - The closure of the border substantially impacted the income of many families around the country, with Vanuatu experiencing a significant recession.⁹ This reduces the ability of families to afford costs related to schooling.
 - Many families around Vanuatu depend on their children to support the family at home or in their gardens. The increased economic pressure families felt during the lockdown may have increased pressure on children to remain at home for isolated days or more extended periods
 - Many seasonal workers spent extended lengths of time overseas.¹⁰ This could lead to a fall in the quality of parenting/guardianship, a key influence on education outcomes.
- The closed borders also reduced access to human capital. For example, there were fewer volunteers who previously supported a select number of schools.
- The pandemic has caused mental strains for many people around the world. COVID-19 related mental health challenges can reduce focus, energy, satisfaction and effectiveness in teaching and learning.

There are also the impacts of TC Harold. This led to widespread destruction of school buildings, causing damage to schools of VUV 6.3 billion.¹¹ Many children spent extended periods learning in tents, with reports of tents still being used in some schools in December 2022.¹² Cyclones are also highly traumatising events for the individuals involved. Substantial resources were used to respond to and recover from the cyclone, diverting people and money from other activities. The overall recovery

⁹ GDP was estimated to have shrunk by 5.2% in 2020

¹⁰ Previously most seasonal worker placements were six months, but after borders closed, many individuals spent up to two years overseas

¹¹ Post Disaster Needs Assessment: Tropical Cyclone Harold and COVID-19

¹² https://www.dailypost.vu/news/still-studying-under-tarpaulins-2-years-after-tropical-cyclone-harold/article_31c84385-48b0-537c-a818-ecfde5cbd067.html

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

costs were estimated at VUV 11.8 billion, of which VUV 8.7 billion was for the repair and reconstruction of schools. $^{\rm 13}$

While there is certainty that all of the above impacts have happened to some degree, it is difficult to quantify the magnitude of these impacts. Some factors have also mitigated COVID-19's impact, making it difficult to determine the pandemic's overall effect on education. These factors include, but are not limited to:

- No COVID-19 community transmission for approximately 2 years, limiting disruption to both schools and daily life.
- The relatively short lockdown periods resulting in a lower loss of in-person education compared with many other countries approximately 80-100 days on average compared to 141 globally (World Bank 2022).
- Limited non-lockdown restrictions in schools, such as masks or social distancing, compared with other countries.¹⁴
- Vanuatu's intrinsic resilience shielded many families and communities from the economic impacts. For example, 85% of the population enjoy indigenous customary land access, 94% of whom say the land is sufficient to meet their familial food needs. (VNSO, 2020)
 - The impact of economic pressures on education should also be lessened by recent changes to reduce the cost of schooling – for example removing tuition fees for up to Year 10
- Limited permanent business closures and lower unemployment than could have happened. This was due to an economic situation supported by short lockdowns, low levels of COVID-19 related illness, a substantial fiscal stimulus, large aid flows, and substantial overseas remittances.
- Substantial support for the education system through a broad and generous government support package explained in further detail below.

Despite these mitigating factors, the overall impact of the pandemic on education is still expected to be negative. The key question which this report seeks to begin to understand is the magnitude of this impact.

Answering this question is made more challenging by the fact that there were also several major changes to the education system in recent years. These include: (i) the implementation of a new curriculum from Year 1 in 2016, with later years following on, (ii) the decision to have multilingual schooling including Bislama or Vernacular up until Year 6, commencing in 2016, and (iii) the creation of the School of Education under the National University of Vanuatu which led to no new teaching graduates from 2018 to 2020 from this institution whilst the restructure happened. This is a non-exhaustive list, and all of these changes are expected to have had some impact on educational outcomes during the period under question. It is very difficult to disentangle the impacts of COVID-19 from these other changes.

¹³ Post Disaster Needs Assessment: Tropical Cyclone Harold and COVID-19

¹⁴ There is no firm data for this, but these restrictions were only required for a maximum of 2 months in Vanuatu

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

4 Support provided to schools

The government responded to COVID-19 and TC Harold with a number of support packages.

4.1 The Vanuatu Australia School Community Grant

A key focus of this report is the VASCG's effectiveness in helping communities to support their children's education during the pandemic. The VASCG was announced in October 2020 in response to the pandemic. Its three main aims were to:

- Provide an economic boost to the local community.
- Meet a school need outlined in the School Improvement Plan or otherwise agreed that will engage and benefit the community.
- Encourage the use of locally available resources.

Whilst the grant had a wider goal of providing an economic stimulus around the country, this report will just focus on evaluating its effectiveness in the education sector. The grant was VUV 5,780 per student in primary schools (years 1-6). This was equivalent to increasing the normal annual school grant amount of VUV 8,900 by 65%. The total allocation for the VASCG scheme was VUV 320 million (AUD 4 million). Principals were required to consult the School Council and the School Community Association to make sure the funds were used in line with the 3 main aims. There were 461 primary schools in 2021,¹⁵ each receiving an average of VUV 694,143.¹⁶

Schools received the grant in early 2021 and had 12 months to report on how they spent the money. MoET provided examples of how to apply the funds, such as paying for maintenance and minor repairs, building WASH facilities, creating school or community gardens and providing student meals. MoET distributed a poster to communities explaining the purpose and use of the grant. A copy is available in Annex 1.

4.2 Other support to schools

In addition to the VASCG, the following packages were implemented:

- A Global Partnership for Education Grant for primary schools (Years 1 to 6) of VUV 393 per student.
- Contributions to Boarding School Fees for students in Years 7 to 13/14 in 2021.
- A tuition fee subsidy of VUV 42,000 per student in 2021 and 2022 for students in Years 11 to 13/14.¹⁷ Funding for this came from the Governments of Vanuatu and Australia.
- Exam Fee Support for students in Years 12-14 in 2021.
- Home school packages, developed both by individual schools and by the Ministry of Education and Training.

¹⁵ MoET Education Statistics, Basic Tables 2021

¹⁶ Source: Own calculation – average generated by dividing the total funding by the number of schools ¹⁷ https://www.dailypost.vu/news/school-fee-exemption/article b9f1a02e-7529-11ea-9c52-47df04282b02.html &

https://www.dailypost.vu/news/school-fees-subsidy-for-over-26-000-students/article_253e421a-bc14-11eb-87c3-2f5964be18c9.html

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

- MoET worked with schools to deliver home school packages, particularly for the second lockdown when there were 10 weeks of material provided for Early Childhood Care and Education (ECCE), primary, and junior secondary.¹⁸
- Homeskul Givhan Radio Show
- This was first aired on 10 April 2020. It was broadcast on Mondays 5:00–5:30 pm for parents of kindergarten age children, Wednesdays 5:00–5:30 pm for parents of students in Years 1 to 3 and Fridays 5:00–5:30 pm for parents of students in Years 4 to 6.¹⁹
- The recordings were also available on MoET's website. The MoET website was made free to access for Digicel users on 1 April 2020 and for Vodafone users on 16 April 2020. It is unclear how long this lasted for.
- Free access to 30 educational websites for Vodafone users
- This initiative was launched in June 2020 to provide a wider variety of resources to parents, students, and teachers around the country.
- Launching a free phoneline for MoET to collect information from school principals, parents, and communities on COVID-19 and TC Harold's impacts and, conversely, to allow these groups to get information from MoET regarding support packages.

5 Methodology

This report uses a mixed-methods approach to understand the impact of the pandemic on education, and how effective the VASCG was in mitigating these impacts. The different methodologies are presented below in more detail.

5.1 Descriptive Statistical Presentation

This section uses previously published data to look at the high-level trends which have occurred over the period in question. The data sources used are:

- VANSTA Reports for 2017, 2019, and 2021
- PILNA Reports for 2021
- 2021 Education Statistics Report

The findings from these reports are simply presented to provide context for what has happened to key variables.

5.2 Financial Data Analysis

In 2017 the government initiated a requirement for schools to enter their financial data into the Open Vanuatu Education Management Information System (OV). This data is provided for income and expenditure at an individual school level, with income and expenditure aggregated according to

¹⁸ https://www.dailypost.vu/coronavirus_updates/education-is-everyone-s-business/article_f0b018f4-b075-52f4-abb7-2ce96fa8697a.html

¹⁹ https://www.dailypost.vu/news/ministry-of-education-launches-radio-learning-program-to-support-home-schooling/article_70ada662-86a2-11ea-bdf5-e74907c4a116.html

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

category. Over time, there has been a slow increase in the number of schools using OV, although there was a slight fall from 2020 to 2021 at the primary level.

	Incom	е	Expenditure		
	Primary Schools Secondary Schools		Primary Schools	Secondary Schools	
2017	25	-	41	-	
2018	224	48	232	52	
2019	340	67	351	69	
2020	359	70	364	73	
2021	333	70	351	76	

Source: Analysis on OV data

In 2021 there were 461 primary schools and 110 secondary schools.²⁰ This would mean that 75% of primary schools and 69% of secondary schools were using OV to track expenditure.

Data are available for the period 2017-2021 for primary schools and 2018-2021 for secondary schools. For the first year of analysis (2017 for primary schools and 2018 for secondary schools), the number of schools reporting data on income and expenditure is significantly lower than in the subsequent years.

Data is provided for income and expenditure broken down by category. A full explanation of the categories is provided in Annex 2. Analysis of this data looks at how income and expenditure trends have changed over time for schools. This will be used to help inform how the VASCG was spent.

5.3 Phone Survey

A phone survey of school principals was conducted to get feedback from schools across the country related to??. The survey questions were designed in collaboration with MoET and Vanuatu Education Support Program (VESP). Because of the difficulties in communicating over the phone in Vanuatu, the questions were designed to be as simple as possible. There were no open-ended questions, with all questions being multiple choice. There were 26 questions. Questions 21 to 26 were only asked to schools which indicated that they received the VASCG.

MoET provided details for 531 schools.²¹ 100 schools were randomly chosen to be contacted as part of the survey process. The interviews started on 19 August 2022 after the phone survey training and finished on 29 September 2022. The survey team attempted to call on 18 separate days.

The team only managed to successfully contact 41 schools. Of the remaining schools, 30 had unlisted numbers, 22 had phones turned off or out of coverage, and seven did not answer their phones.

The team used their network to seek to address these issues and got updated contacts for six school principals and conducted an in-person interview with one principal during a workshop.

²⁰ MoET Statistical Report 2021

²¹ Data included: School ID, School name, School address, iCode, School type, school contact, School language, School authority and Geographical Location (rural/urban)

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

The team attempted to call each School Principal between one and seven times. At the beginning of each phone call, the team informed the principals of the purpose of the survey and that their feedback would remain anonymous.

A breakdown of the successful surveys is presented in Annex 3, looking at school type and province.

Due to the small sample sizes for the sub-groupings, the report only presents results for the full population. Annex 3 also contains detailed results, including breakdowns by sub-groupings.

5.4 Case Studies

To complement the phone survey, six in-depth interviews were held with schools in Santo. Santo was chosen so the case studies could examine TC Harold's impacts as well as COVID-19's. The schools selected were:²²

	Ebenezer	Hog harbour	Kamewa	Lycée de Luganville	Natawa	St Therese
School Type	Year 1-8	Year 7-12	Kindergarten to Year 8	Year 9-14	Kindergarten to Year 8	Kindergarten to Year 8
School Size	294 students, 11 teachers	267 students	1,100 students, 50 teachers	660 students, 48 teachers	364 students, 13 teachers	700 students, 40 teachers
Location	South Santo	Hog Harbour	Luganville	Luganville	East Santo	Luganville

Table 2: Descriptive Statistics for Case Study Schools

The six schools chosen taught students from kindergarten to Year 14, and ranged in size from 267 students to 1,100. A list of questions was agreed in advance to help guide the discussion, but it was generally an open-ended discussion. At each school semi-structured interviews were held with a range of individuals, including the principals, teachers, students, parents, and members of the school board. The conversations focused on (i) COVID-19 and TC Harold's impact on learning outcomes and (ii) the VASCG, including how schools learned about the grant, how they spent it, and the resulting outcomes.

5.5 Regression Analysis

This report uses a pooled 'ordinary least squares' (OLS) model. The model uses the mark obtained by every student in VANSTA to quantify academic performance, using as much relevant data as is available. The analysis predominantly considers the variation in academic performance before and after the COVID-19 outbreak but also considers TC Harold's impact.

The dependent variable is the *MarkRatio*, which is the VANSTA score that individual achieved for that result divided by the score needed to meet the minimum standard for that exam. This is needed for consistency as this minimum score varies between exams.

The model includes data on student characteristics (gender, age, and school Year) and school characteristics (number of students, a student-teacher ratio, language of instruction (English or French), income and expenditure, location (Island, Area Council and Province), an urban/rural dummy variable, and a dummy variable for whether a school was within 50km of the eye of TC Harold). The

²² All information as provided by the case studies, not official MoET statistics

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

model seeks to understand correlations between variables and learning outcomes. The variable for TC Harold would be expected to the most robust, as there is a clear control group (i.e. the rest of the country). Annex 5 provides descriptive statistics for the variables used. A dummy variable is then included for 2021, which seeks to understand the impact of the pandemic. The authors recognise that this variable would not be unable to separate out the impact of COVID from any other changes which occurred between 2019 and 2021. The analysis may also mistakenly attribute the impact of longer-term trends to the analysis.

A second regression (regression b) is run which includes dummy variables for whether a school increased their spending in certain categories (development, education supplies, operations and maintenance) by more than 50% in 2021. This seeks to capture the impact of the VASCG.

A more complete explanation of the econometric specifications is available in Annexe 5.

5.6 Limitations

The first limitation is that all the assessments' data, VANSTA and PILNA, are for 2021. This is before the community outbreak of COVID-19 in Vanuatu and the subsequent closure of schools in 2022. These data will therefore only partially capture the impacts of the pandemic on education. The same is true for the VASCG – much of the spending would have only happened around the time of the VANSTA, and so the benefits will not be fully captured.

Another significant limitation is the data quality. Much of the data is entered in a disaggregated manner, with individual schools responsible for inputting their own data – especially the financial data into OV. This is a relatively new system, and there is a wide range in capacity between different schools. Different schools may also code differently – for example 30 primary schools recorded no income in the 'other' category in 2021. This was despite all primary schools being theoretically eligible for the VASCG, which should be recorded in this category. This occurs across almost all the reporting categories and suggests further training is needed on correctly using OV.

For the phone survey the first limitation is the relatively low response rate achieved. The survey was notably poor at reaching schools in Penama and secondary urban schools. There are also concerns about bias – for example schools which had a working phone number may also be better run, which would mean that the survey was not representative. This is examined more in Annexe 3.

The survey is also limited in its ability to understand the nuances or depth of an issue. All the questions were qualitative and multiple choice and were designed to be relatively simple. There is the possibility that answers that schools would have liked to give were not available options. It is also possible that issues schools consider important were not included in the survey design.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

6 Findings

6.1 Descriptive Statistics

All nine VANSTA exams (English, French, and Numeracy at years 4, 6, and 8) saw a fall in the proportion of students meeting or exceeding the minimum standard from 2019 to 2021, with an average fall of 12%.²³ The largest falls were in French Literacy Year 8, which fell by 17 percentage points (74% to 57%), English Literacy Year 4, which fell by 11 percentage points from 55% to 44%, and French Literacy Year 4, which fell by 10 percentage points from 57% to 47%. By contrast, numeracy scores held up relatively well, with 83% of Year 4 students meeting the minimum standard, a slight fall from 85%. There was a larger fall at Year 8 Numeracy, from 79% to 72%.

For Year 4 Literacy (French and English) there was also a slight decline (2%) in the absolute number of students achieving minimum standards. There were slight increases in the number of children meeting minimum standard in Year 6 Literacy (1-2%), an increase of 15% for Year 8 English, and a fall of 21% in Year 8 French. For numeracy there was a continuing increase in the number of children meeting minimum standards across all years.

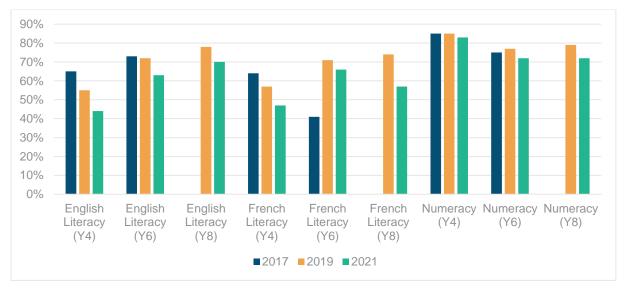


Figure 1: Percentage of students meeting or exceeding minimum standards, VANSTA 2017-2021, by subjects and years

Source: 2021 VANSTA Report

Looking at the results by province, Torba saw the largest percentage fall in the proportion of students meeting or exceeding standards.²⁴ Torba was already the poorest performing province prior to COVID-19, with an average pass rate of just 57% across the 9 exams in 2019, a figure which fell to 41% in 2021. Torba is the clear standout, with the other provinces all experiencing a decline of between 9 and 14%. Interestingly Sanma saw the lowest percentage fall, despite being heavily impacted by TC Harold.²⁵

²³ This is an unweighted average

²⁴ These figures are an unweighted average of the fall in the proportion meeting/exceeding minimum standards across the 9 subjects

²⁵ One possible reason for this is that Sanma saw a larger fall in enrolment than other provinces. If it was the lowest performing students who were more likely to drop out this could help explain the result

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Table 3: Unweighted average of the proportion of students meeting or exceeding minimumstandard across the 9 VANSTA exams by province, 2019 and 2021

Province	2019	2021	% change
Malampa	71%	63%	-10%
Penama	83%	72%	-13%
Sanma	75%	68%	-9%
Shefa	78%	68%	-13%
Tafea	60%	52%	-14%
Torba	57%	41%	-28%

Source: 2021 VANSTA Report

As well as the VANSTA, Vanuatu takes part in the PILNA. These are standardised assessments implemented every three years across the region. The PILNA results also showed a fall in the proportion of students meeting the minimum proficiency levels for every subject. While numeracy held up relatively well in the VANSTA, there was a larger fall in the PILNA, with the proportion of children in Year 4 meeting this standard for numeracy falling from 79% in 2018 to 58% in 2021. Only 21% of students met or exceeded the minimum standard in Year 4 in 2021 for literacy.

The Year 6 results were on par with the region, while the Year 4 results were below average.

Table 4: Proportion of students meeting	a or exceeding minimu	m standards. PILNA. 2015-2021
	y or oncoording minimu	

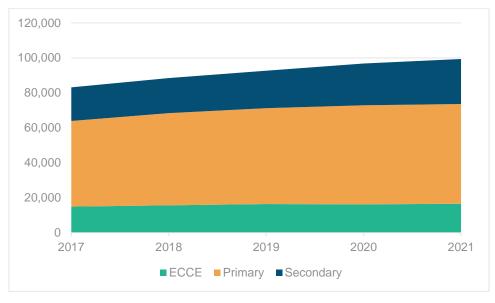
	Year 4			Year 6		
	2015	2018	2021	2015	2018	2021
Numeracy	88%	79%	58%	75%	85%	73%
Reading	28%	28%	21%	56%	66%	60%

Enrolment numbers continued to grow during the COVID-19 period, with total student numbers rising to just under 100,000 in 2021 (99,363). ECCE numbers grew by 1% from 2019 to 2021, compared to 10% from 2017 to 2019. The corresponding figures for primary were 4% and 12%. Conversely, secondary numbers grew by 20% from 2019 to 2021, compared to 11% from 2017 to 2019. This is likely driven at least in part by a change in policy in 2020 which no longer required students in Years 6 and 8 to sit exams to be placed in schools.²⁶

²⁶ https://www.dailypost.vu/news/no-more-exams-for-year-6-and-year-8-in-2020/article_81ff689a-e2d6-52c8-9fcb-dfdef17a8f7c.html

Assessing the impact of COVID-19 on education in Vanuatu | May 2023





Source: Education Statistics, Basic Tables of 2021

Net/gross enrolment data is only available until 2020, but there was a drop in enrolment rates for both primary and secondary schools in 2020. The fall in enrolment rates for ECCE institutions was particularly large. It is unclear what is driving this result. For primary schools, the net enrolment rate fell from 96% in 2019 to 90% in 2020.

	2018		2019		2020	
	NER	GER	NER	GER	NER	GER
ECCE	78%	106%	97%	112%	50%	65%
Primary	92%	125%	96%	127%	90%	117%
Secondary	42%	48%	43%	47%	50%	61%

Table 5: Net Enrolment Rates (NER) and Gross Enrolment Rates (GER)
--

Source: Education Statistics, Basic Tables of 2021

Much of the fall in net enrolment rates at the primary level occurred in Sanma and Torba provinces, which saw NER falls of 26% and 34% respectively at the primary level.

There was no easily available data on attendance, which is a key consideration in examining the pandemic's impact on education. A limited number of schools have begun to use OV for attendance data, but it is not currently in a format that can be used for this analysis.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

6.2 Financial data

6.2.1 Primary Schools

After several years of growth in average recorded income for schools, average reported income dropped by 12% in 2020, before recovering strongly in 2021. Average expenditure followed a similar trend, falling by 13% between 2019 and 2020, before rising by 28% in 2021, to levels higher than previously seen. There were particularly notable increases in development and operations and maintenance.

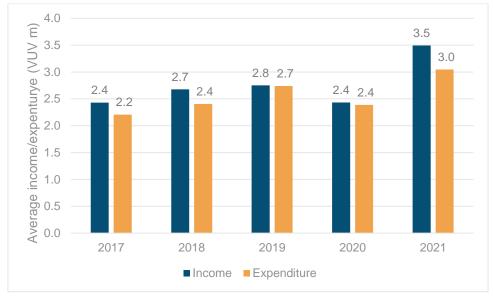


Figure 3: Average income & expenditure for primary schools, 2017-2021 (VUV m)

One issue with this analysis is that the schools which are included in each year's analysis is changing, meaning it is not a consistent comparison. Looking at just schools which had data available in 2017, they had an average income of VUV 10.4m in 2021. This suggests that it was larger schools who were first to utilise OV. It also suggests that the above analysis possibly underestimates the growth in school income over this period, as if every year smaller schools join the system, they will bring down the average and thus disguise systematic growth. For those schools for whom there is complete data there was an average annual growth rate of 44% in income – substantially higher than for the whole cohort. These schools did however follow the same broad trend as above, with growth until 2019, a sharp fall in 2020, and then a larger increase in 2021.

Figure 4 shows the average composition of primary school income. Data is used from 2018 onwards as the sample size from 2017 is too small and distorts the data too much.

Income from students more than halved from 2019 to 2020, falling from VUV 587,326 to VUV 260,242. This was accompanied by a slight fall in 'other income' from VUV 330,630 to VUV 277,314. Looking at the detailed data, this was almost entirely caused by a fall in income from fundraising, which in essence halved in 2020, before nearly fully recovering in 2021.

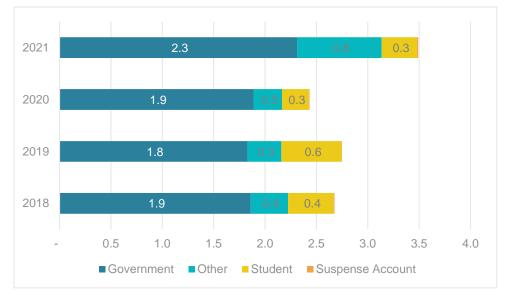
From 2018 to 2020 there were 13 'donor partners operating grant' payments recorded in the system, each with an average of VUV 88,700. This jumped to 229 payments in 2021 for 124 schools, each with an average income of VUV 402,800. The large increase in recorded payments is due to the impact of the VASCG. However, there were 333 primary schools who inputted data in 2021, and all 333 schools should have received the VASCG, meaning that just over 200 schools did not input their data correctly into the system.

Source: Analysis on OV Data

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

The level of income from Government was roughly stationary from 2018 to 2020, at just under VUV 1.9m per school on average. It then increased to VUV 2,297,851 in 2021. Almost all of this increase was under the 'Government Operating Grant' line, which suggests most of this increase was from the VASCG and was inputted into OV incorrectly.²⁷

This analysis therefore suggests that the VASCG played a key role in helping to sustain and even increase school's budgets, at a time when income from other sources – most notably students – was falling.





Source: Analysis on OV Data

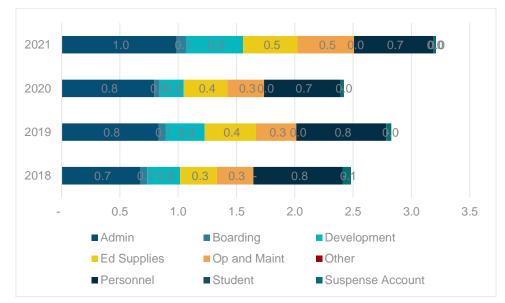
On average, urban schools have an income of around 5 times higher than that of rural schools. A provincial breakdown is presented in Annex 2.

Average primary school expenditure rose by 33% from 2020 to 2021, rising to VUV 3.2 million. **There were particularly notable increases in development** (rising by 138% from an average of VUV 206,244 to VUV 489,871) **and operations and maintenance** (rising by 54% from an average of VUV 312,206 to VUV 480,041). Average expenditure on administration (24%) and education supplies (25%) also grew noticeably. Spending on personnel grew by just 4%, as expected from a one-off grant.

²⁷ Schools are responsible for inputting their own data into OV. Whilst the VASCG should have been recorded as 'donor partners operating grants', it often wasn't.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023





Source: Analysis on OV Data

79% of schools increased their spending on at least one of development, education supplies, or operations and maintenance by 50% from 2020 to 2021. This included 8% of schools that increased their spending on all three categories by at least 50%. A further 12% of schools increased their expenditure on both education supplies and operations/maintenance by 50% each. 11% of schools increased their spending on both development and operations/maintenance by at least 50% each. And 7% increased their expenditure on both development and education supplies by at least 50%.

6.2.2 Secondary Schools

Secondary schools' similarly saw a fall in average income in 2020, falling to VUV 16.2 million from VUV 18.3 million, before increasing sharply to VUV 26.3 million in 2021, in line with increased support to secondary schools from the Governments of Australia and Vanuatu. Average expenditure followed a similar pattern, falling in 2020 to VUV 15.4m before hitting a new recorded high of VUV 18.7m in 2021. The large gap between average income and expenditure in 2021 suggests that secondary schools should have had a healthy surplus leftover at the end of 2021.

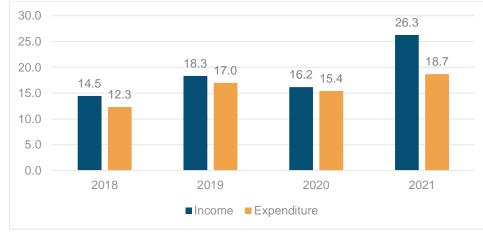
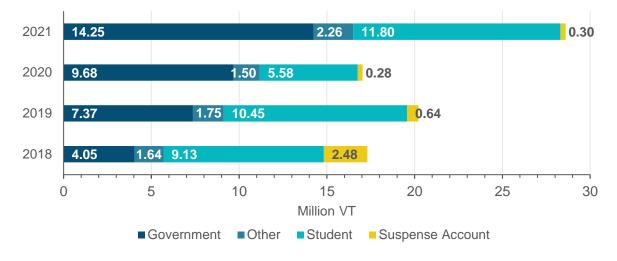


Figure 6: Total average income & expenditure for secondary schools, VUV million, 2018-2021

Source: Analysis on OV Data

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Secondary schools saw a sharp increase in government revenue in 2021, rising from an average of VUV 9.7 million in 2020 to VUV 14.3 million. There was also a slight increase in revenue from 'other'. Income from students almost halved from 2019 to 2020, before increasing substantially in 2021, to be the highest on record. This is despite there being subsidies for school fees and tuition fees. Rising student numbers would be driving increased student revenue to some degree, but it is unclear what the overall drivers of this finding are.





Source: Analysis on OV Data

The largest increase in secondary schools' expenditure from 2020 to 2021 was administration, which rose by 45%, or an average of VUV 1.8 million. There were also notable increases in expenditure in for boarding, development and educational supplies.

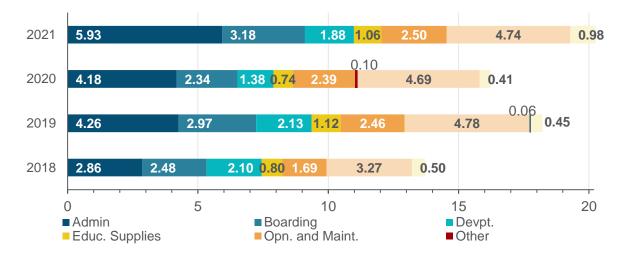
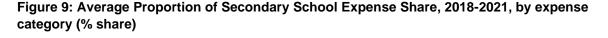


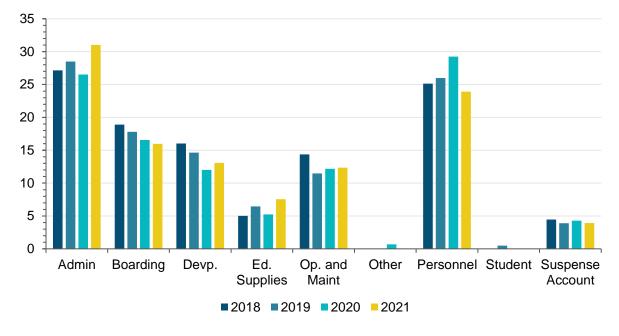
Figure 8: Average Secondary School Expenditure, 2018-2021 (VUV m)

Source: Analysis on OV Data

Similar trends are seen in the proportion of expenditure spent on each category, with administration increasing to 31% of total expenditure in 2021.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023





Source: Analysis on OV Data

6.3 Phone Survey & Case Studies

The key results and findings from the phone survey, along with some notable quotes are provided below. Full results from survey is in Annexe 3 and the full case studies are in Annexe 4.

6.3.1 Overall impact

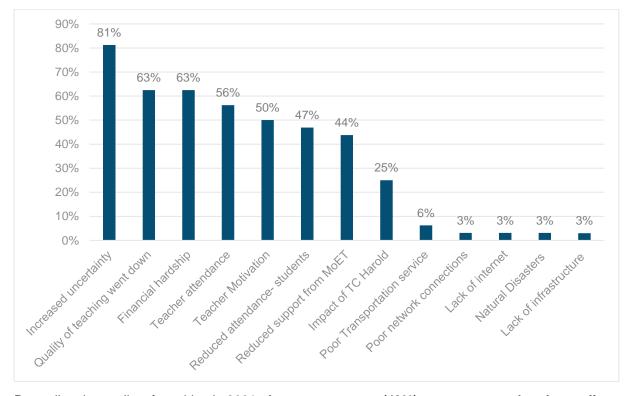
71% of respondents reported that the closure of international borders had a major negative impact on the wider local community. Examples of major negative impacts provided by the survey team to guide the answer were an increase in unemployment, income reduction, family separation, and other social issues. A further 20% said it had a minor negative impact, with 5% saying it had no change.

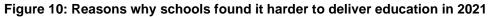
78% of respondents stated that delivering education was harder in 2021 compared to 2019, including a slight majority of respondents (51%) who stated that delivering education in 2021 was a <u>lot harder</u> than in 2019. 15% reported no change, and 2% said it was easier.

42% of the respondents reported student attendance improved in 2021 compared to 2019, while 37% said it was broadly unchanged. Just 17% said it got worse. This contrasts with Figure 10 which indicates 47% of respondents said lower student attendance was a factor in making education delivery more difficult in 2021. It is unclear what is causing this difference.

The most common factor (81%) explaining why schools found it harder to deliver education was increased uncertainty, followed by reduced teacher quality (63%), financial struggles (63%), reduced teacher attendance (56%), teacher motivation (50%), and reduced student attendance (47%). 44% of schools said that reduced support from MoET also made delivering education more difficult.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023





Regarding the quality of teaching in 2021, **the most common (43%) response was that the quality of teaching had improved a bit, with a further 20% reporting it had improved a lot**. 25% observed that the quality of teaching was unaffected. 13% reported that it got a bit worse. There is a contrast between this answer and the preceding question, where 63% of respondents said the quality of teaching declined.

One potential impact of border closures and the ensuing impact on earning opportunities is fewer community teachers as opposed to government paid teachers. Only 5% of the respondents did not have community teachers, and 13% stated that the number of communities teachers increased. 51% said the number of community-supported teachers in their schools remained unchanged, while 31% saw a decrease in the number of community-supported teachers.

43% of respondents said that students learned more in 2021 compared to 2019. 30% reported students learned less. 25% of the respondents said student learning remained unchanged during that period. This result contrasts with the VANSTA results discussed elsewhere, which showed a clear fall in learning outcomes.²⁸

From the case studies, of the 6 schools interviewed, 2 schools reported limited to no impact (Hog Harbour and Natawa Centre) from TC Harold, which was to be expected given their distance from the eye of the storm. The other schools experienced more severe damage, with Kamewa Central Primary School and Lycée de Luganville reporting damage to nearly every building and St Therese Primary School and Ebenezer School reporting widespread damage. The cyclone also emotionally affected the island's children, teachers, and parents. The stress of COVID-19 compounded this emotional trauma.

²⁸ One possible explanation for this is school principals wanting to convey a good impression of their schools or not wanting to admit that the learning outcomes from their school declined.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

"First, we had the pandemic, then Cyclone Harold, which almost entirely wiped out the school, and then months of rain due to the La Nina weather conditions in 2021. The school's educational and community roles were severely affected. We had not just 2 but 3 hits, all on top of each other. The kids, parents and teachers really felt it.".

School Council Chairperson, Kamewa Centre Primary School, Mr. Mark Bethel

Schools hit hardest by TC Harold suffered significantly in their ability to deliver education. The most obvious impact was on classrooms and other infrastructure. Schools reported that children spent extended periods learning in tents or other temporary structures. This was considered particularly detrimental. Other schools reported parents struggling to fund community teachers. Despite these challenges, all the schools continued delivering education in 2020 and 2021, with seemingly limited impact on enrolment. There were challenges associated with the pandemic, most notably relating to parents' ongoing ability to pay for education-related expenses, due to the economic impact of border closures.

"It was very good for us students to have normal classrooms again. For some time, we did our lessons in tents and it was very hot. We could not concentrate, and when it rained, it got wet and muddy."

Lycée de Luganville, Mrs. Lindane Ngwele

6.3.2 Impact of lockdown in March 2022

Vanuatu went into a lockdown in March 2022 due to COVID-19 community transmission. **Schools reported in the survey being closed for 7.4 weeks on average**. This ranged from three schools who said they were only closed for one week, to one school which reported being closed for 13 weeks.

During this period, the most common method of delivering education was school-prepared homeschooling packages, which were used by 68% of schools. 33% of schools used MoET-prepared materials, while 10% used online modules. 5% said they delivered education in classes, possibly reflecting boarding school responses.

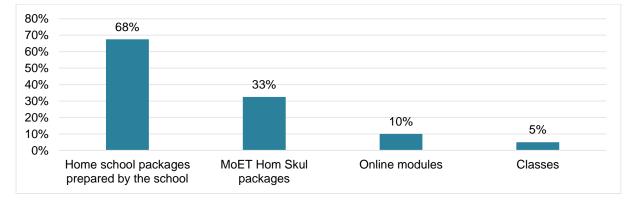


Figure 11: School's methods of delivering education during lockdown

Just 10% of schools said that over 90% of students accessed the materials, but 41% said that between 75-90% could. 26% of schools said fewer than half of their students could access the materials.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Nearly half (48%) of respondents said the content of the school package was high quality, with little difference to in-class learning. 13% said the content was not as good as in-class learning and 22% said the content was not good enough and learning outcomes were poor. The remaining 17% were unsure.

All the case study schools indicated they prepared and distributed *Hom Skul* learning materials, but all agreed these did not meet appropriate educational standards. Some key issues reported were an inability to print or deliver materials, families' inability to pay for internet access to materials, communities prohibiting teacher-student interactions to stop the pandemic's spread, and teachers' inability to explain concepts to students via home schooling. There was widespread agreement that students had fallen behind during this period, with some concerns about the packages' uneven learning outcomes, as some students could complete the work while others were unable to access the materials.

All schools in the phone survey reported that the lockdown negatively impacted learning. **92% said the lockdown had a major impact on children's learning, defined in the survey as most children learning very little during this period**. 8% of the respondents observed a minor impact on student learning. Respondents also reported anecdotally to the survey team that they noticed a wide variation between families, often depending on the parent's level of education and commitment.

"Students who were determined and willing to learn did okay. But the (students) that needed assistance from teachers, slowly lost interest in learning."

Hog Harbour's science teacher and Deputy Principal, Mr Jack Kaberi

From the phone survey, when students returned to school after the lockdown, **73% said student attendance was lower once schools reopened**, including 30% who said it was a lot lower. 20% said there was no change, and just 8% said it was better. This suggests a potential risk exists that the lockdowns have led to children not returning to school permanently or their behaviour patterns have changed. There is limited attendance data and so this is something which should be monitored.

After re-opening, the case study schools reported different experiences. Many struggled with social distancing rules in the immediate aftermath of the major outbreak – for example Ebenezer School reported that to try and adjust to social distancing rules, they rotated children daily in and out of the classroom, thereby reducing teacher-student engagement time by nearly 50%. The school also reported that over half of their students had fallen behind and were doing additional catch-up work. Natawa Centre Primary School also reported students doing catch-up. This was common across all the schools, with teachers working through school breaks or cancelling extra-curricular activities to help children recover lost ground. There was no indication as to how effective these catch-up attempts have been.

"Now, in the second term, we have all had to work twice as hard to catch up. COVID-19 really affected the scheme of our work. Some teachers even used one week of their school break to continue teaching so students could catch up."

Hog Harbour's science teacher and Deputy Principal, Mr Jack Kaberi

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

6.3.3 Support provided by the MoET and other authorities

88% of respondents said MoET's support over the past 2 years was either very helpful (38%) or a bit helpful (50%). The remainder said the support was not helpful at all.

The respondents were asked to rate the support they received on a scale of one to 10. The most popular support was the Vanuatu Australia Community School Grant, with an average score of 9.5, followed by the exam fee subsidy (8.8) and the tuition fee subsidy (8.7). These were the packages that involved direct financial support. The education support packages were less popular, with the online learning modules (7.7) and *Hom Skul* packages (6.5) receiving slightly lower ratings. The Givhan Radio show was the least useful, with an average rating of just 4.4.

The number of respondents for each support package varied substantially. The number of respondents for each package is in brackets in the key in Figure 25. There were relatively few respondents who had used the Givhan Radio show or the online learning modules.

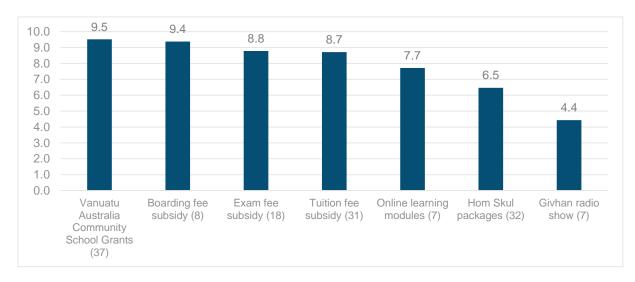


Figure 12: Average score for the support packages' usefulness (number of respondents in brackets, principals were asked to rate each package on a scale of 1-10)

6.3.4 The Vanuatu Australia School Community Grant

78% of the respondent reported having received the school grant. The following responses are limited to just schools which received the grant. **94% of survey respondents said the grant was very helpful, with just 6% saying it was only a bit helpful.** None of the recipients said it was not helpful. Within the case study schools, all were highly appreciative of VASCG's support, with **every school noting that the grant substantially enhanced their ability to continue delivering education**.

The case study schools found out about the funding through various means, including through Sanma Education Officers, MoET emails and MoET's website. Several schools spoke favourably of in-person visits from officials to help them with the grant process. Most schools had some form of decision-making entity to guide them in how to invest the money. One school noted it used its School Improvement Plan to guide their decision-making. Within the phone survey, 55% of respondents said that they received the school grant posters.

The funding was spent on a wide variety of activities. Figure 13 reports findings from the phone survey, with nearly all schools (94%) using the funding to build WASH facilities, with the next most common use being maintenance and minor repairs or purchasing learning materials (both 81%).

For case study schools, uses of the funding included rebuilding dormitories (for two schools), subsidising student tuition fees, buying learning materials, building WASH facilities, constructing a new computer lab, putting up a fence, rebuilding staff housing and buying chairs and tables for students. All six case studies reported using local trades people and local materials to support their

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

repairs or upgrades. There was limited discussion of standards or whether schools were building back better. For those schools severely damaged by TC Harold, the grant meant they could rebuild or repair their schools rapidly. For schools unaffected by TC Harold, the grant enabled them to expand their capacity and invest in learning materials. Half of the schools interviewed said the funding made a positive difference to enrolment or attendance. It is also clear that much of the spend was on initiatives designed to boost long-term learning outcomes, and that majority of the benefits would be expected to be accrued after the VANSTA/PILNA Assessments in 2021.

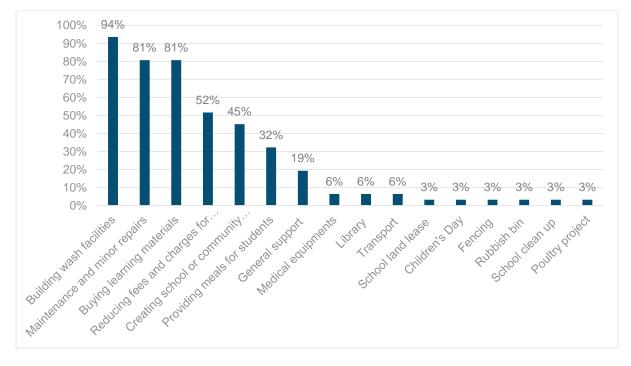
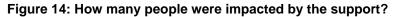
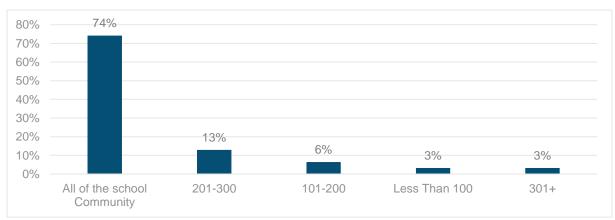




Figure 14 shows how many people were impacted by the grant. 74% of respondents said the school grant impacted the entire school community, although there was no indication of the size of these groups. Only 6% said fewer than 100 people were impacted.





Assessing the impact of COVID-19 on education in Vanuatu | May 2023

"When we practice hand washing at the school, it starts to reduce things like diarrhoea, skin infections and stomach-ache. What's good is that the students take this information home. Now many villages have hand washing stations."

Wash & Sanitation Committee Chairman, Natawa School, Milton Molisa

"Hog Harbour School went through some tough times during the COVID-19 crisis. The support from the Ministry and Australia has really boosted morale. We now have funds for things like books and equipment. Really pleasing is that classes are getting back to normal and students, teachers and families are feeling better."

Hog Harbour School Council Chairman, Mr. Joel Path

"Back in 2021, parents said they heard about Australia's support and were happy. They said without the support, maybe their kids would not have been able to go to school."

Lycée de Luganville Principal, Mr. Barthelemy Ngwele

6.4 Regression Analysis

Annex 5 presents the detailed results of the regression.

COVID-19's effect is expressed by the variable Year 2021 (post-COVID-19). It is important to note that it cannot be interpreted as a causal treatment effect because it is impossible to introduce a counterfactual for islands or regions not affected by COVID-19.

The outcome variable is *MarkRatio*, which is the mark the student scored divided by the score needed to meet minimum standard for that exam. Annexe 6 also provides graphs showing the distribution of the *MarkRatios* over time by subject. The most noteworthy finding from these graphs is that 22% of children in the Year 4 English literacy exam had a *MarkRatio* below 0.5 (i.e. they got under half the score needed to meet the minimum standard), up from 6% in 2017.

An estimation can also be done of TC Harold's impact on student academic performance. This is a more robust variable than the effect of the year 2021 as there is a control group (schools outside the 50-kilometre range).

These findings can then be used to create an estimate for the proportion of children who would fall into one of the 4 following groups, with findings presented in Table 6:

- Children who passed. These are the children whose *MarkRatio* is greater than or equal to one, and it is assumed that they would have passed regardless of the impacts of COVID-19 & TC Harold.
- Children who failed but who the model predicts would have passed in 2021 had it not been for COVID-19/other 2021 changes. This group's ratio scores fall in between $(1-\delta_2)$ and 1, where δ_2 is the 2021 coefficient from the model. For example, for literacy, the coefficient was (-.093).

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

The model suggests that any child whose ratio was between 0.907²⁹ and 1 would have passed their literacy exam had it not been for COVID-19/other 2021 changes.

- Children in the TC Harold affected area who failed but who the model predicts would have passed if unaffected by TC Harold and COVID-19/other 2021 factors. The ratio for this group for literacy falls between 0.870 and 0.907 (the coefficient was –0.036, so the calculation is (1-0.093-0.0364).³⁰
- Children who would have failed anyway. For these children, their ratio is either below 0.907 if their school is outside the TC Harold affected area or below 0.870 if their school is inside the TC Harold affected area.

Table 6: Estimate from the Regression Model for the proportion of children who failed due to COVID-19/2021 Factors and TC Harold

		Estimate for th	e percentage of chin		i who.
Year	Field	Failed due to COVID/2021 factors	Failed due to TC Harold	Would have failed regardless	Passed
4	Literacy	4.3%	1.1%	49.2%	45.4%
4	Numeracy	3.9%	0.7%	11.6%	83.9%
6	Literacy	5.6%	0.5%	30.3%	63.6%
0	Numeracy	6.7%	0.7%	20.7%	71.9%
8	Literacy	5.5%	1.1%	26.7%	66.7%
0	Numeracy	7.6%	0.9%	19.8%	71.7%
Total	Literacy	5.0%	0.9%	37.8%	56.3%
Total	Numeracy	5.7%	0.7%	16.5%	77.1%

Estimate for the percentage of children in 2021 children who:

The model suggests that the overall impact of COVID-19 & other 2021 factors led to 1,057 children failing to meet the minimum literacy standard, with the equivalent figure for numeracy being 1,180. This is equivalent to 5 to 6% of the total school population.

The model finds that older children were generally more affected. However, this result should be treated with caution due to the limitations of producing just one overall coefficient for education. It is highly plausible that younger children were more affected than older children. If this were the case, this model would be underestimating the impact of 2021 factors on Year 4 and overestimating the impact on Year 8.

The model estimates that TC Harold led to an additional 189 children failing their literacy exam and 153 failing their numeracy exam, or just under 1% of the total school population. This rose to approximately 4% if only the children in the TC Harold affected area are considered.

The result presented above uses estimates from *regression a*, which was the preferred regression. The coefficients from *regression b* were larger and would increase the impact of COVID-19/TC Harold and reduce the proportion of children who are predicted to have failed regardless.

²⁹ As 1 – 0.0933 = 0.9067

³⁰ The sequencing of this approach means that COVID-19 is considered first and TC Harold next. If an alternative approach is used where TC Harold is considered first and then COVID-19, the estimate for the number of children who failed due to COVID reduces, and due to TC Harold increases, although the combined total remains the same.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Concerning school finances, total school income per capita presents were not statistically significant and had very small coefficients. On the expenditure side, disaggregating by category, expenditure on Admin, Education Supplies, Operation and Maintenance, Personnel and Suspense Account present positive and statistically significant parameters. The only parameter with a negative sign is estimated for boarding expenditure.

When introducing dummy variables for schools that increased expenditure by 50% or more in some expenditure categories from 2020 to 2021, only Operation and Maintenance Expenditure positively impacted *MarkRatio*. On average, students from those schools that increased Operation and Maintenance Expenditure by at least 50% had a *MarkRatio* 0.05 higher than other schools.

Development Expenditure remains statistically insignificant. As previously outlined though, there was a very short lead-in time for most of this spending, and so any long-term impacts would not be captured.

Conclusions

Although it is difficult to isolate the effects of COVID-19 on education, Vanuatu's education system has faced significant challenges over the past 3 years. 71% of phone survey respondents reported that the closure of borders had a major negative impact on the wider local community and 78% said that delivering education was harder. Primary schools reported a fall in income and expenditure of just over 10%. The clearest indicator of this is the fall in the proportion of children meeting the minimum standard in the VANSTA test. The average fall in pass rates was 12% across the nine subjects. Year 4 Literacy was the most concerning, with just 44% of children meeting the minimum standard for English and 47% for French. A similar trend in the PILNA results corroborated this.

This report used a regression analysis to estimate the impact of COVID-19 and other 2021 factors. The model estimates these changes led to 4-8% of children not meeting the minimum. The results should be treated cautiously, given the limitations listed before. Continuing monitoring and assessment of progress is key.

It is also important to note that the data were from 2021, before the COVID-19 community outbreak, and so the full impacts of the pandemic on education are not captured. Nearly all schools in the phone survey (92%) said that children learned very little during the 2022 school closures, a finding which was corroborated in the case studies. This represents nearly 2 months of lost in-person learning for children. This is lower than much of the rest of the world but still represents a substantial loss. The case studies showed variations between schools in their attempts to help children catch up. Although the resources of the education system are already highly strained, specific interventions to help struggling children are worth serious consideration, and ongoing monitoring is recommended.

TC Harold represented an additional challenge for hundreds of schools. The regression model suggests that an additional 3% of children in the affected areas failed because of the impacts of the cyclone. The case studies make it clear there was a heavy emotional toll associated with the disasters for many children, staff, and parents. This is on top of many other challenges, such as having to deliver education in temporary structures. As the case studies reveal, the schools took the lead in repairing or rebuilding, and there was limited evidence of building back better at the government level. The estimated cost of this was VUV 8.7bn.

At the same time, there is evidence that Vanuatu has been able to successfully mitigate some of the pandemic's impacts. A combination of being COVID-free for so long and strong government fiscal support ensured access to education continued relatively uninterrupted for long periods, even as concerns about quality remain. Gross enrolment numbers continued to rise, particularly at the secondary level.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Part of the support provided to schools was the VASCG. As well as providing an economic boost to the local community, it helped to offset a fall in income from students and gave schools additional fiscal capacity to pursue improvements. Most of the spending was on basic but essential items for providing a quality education, such as WASH facilities, textbooks and chairs. Almost all primary schools reported a major increase in their expenditure on at least one of development, education supplies, or operations and maintenance. 94% of survey respondents said it was very helpful, and the case studies highlighted the strong positive impact of the grant on their school. This was true whether schools were or were not impacted by TC Harold. Given the clear outstanding needs which schools face in delivering quality education and the relative ease in administering it, it is clear that it is worth considering a similar support program moving forwards.

The challenges associated with the pandemic are just one part of the bigger picture, with many other factors putting a strain on the education system. The Learning Poverty Report 2022 suggests that countries should '*use post-COVID-19 learning recovery as a springboard for longer-term learning acceleration to address the fundamental challenges with education*'. In Vanuatu, these include dealing with the demographic challenges of such a young nation, ensuring children are receiving the skills required for a rapidly changing and increasingly uncertain world, and refurbishing ageing or damaged infrastructure. These challenges make the recent trend in VANSTA results even more concerning and raise questions about whether the current system of education is either sustainable or suitable for future challenges. The government should use this as an opportunity to fundamentally examine how education is delivered to ensure sufficient quality and quantity of education is delivered to the people of Vanuatu so they can achieve sustainable and equitable development.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Annex 1 – Posters of VASCG

 Provide an economic boost to the local community Provide an economic boost to the local community Meet a school need outlined in the School improvement Plan (SIP) or otherwise agreed that will engage and benefit the community Encourage use of locally available resources Yanuatu Australia School Community Grant one-off grant per student Primary School Grant (Years 1 to 6) S, 780VT Primary School Grant (Years 1 to 6) S, 780VT Grant spent and reported on within 12 months Beneficiaries Wildents Students Students Communities Principals must consult the School Community Association on how to use the grant flowing the their students P Principals of some activities could be: Maintenance and minor repairs Pericating schools or community cald use this grant, contact the Principal and School Council and Principal School Community Cald use this grant contact the Principal and School Councils must no not the implementation of the Vanuatu School Community Cald use this grant contact the Principal and School Councils must no not the grant must be used for an activity in the iscing SIP or a new activity in the existing SIP or a new activity in the provincial report by 15 Docember 2021. PEOS must compile all schools' coport and submit the provincial report by 15 Docember 2021. Peos must compile all schools' coport and submit the provincial report by 15 Docember 2021. Peos must compile all schools' council must nonter the principal and School Council of your to the PEO no later than 30 November 2021. PEOS must compile all sch	Vanuatu Aus	stralia Sch	ool Cor	mmunity Gran	
1. Provide an economic boost to the local community Government and non-Government-assisted primary schools 2. Meet a school need outlined in the School Improvement Plan (SIP) or otherwise agreed that will engage and benefit the community Paid per student, based on school enrolment in Open VEMIS (total of 53,766 primary students) 3. Encourage use of locally available resources > 100% of grant paid in November 2020 Vanuatu Australia School Community < School communities agree on use of grant 7. Primary School Grant (Years 1 to 6) 5,780VT Primary School Grant (Years 1 to 6) 5,780VT Students How to use the grant? Principals and School Councils must consult the School Council and School Councils must be done on Open VEM Students Principals and School Councils must consult the School Council and School Councils must be done on Open VEM Principals and School Councils must consult the school or community agradens Principals and School Council and school cou	continue to work together	in this difficult time.			
 Paid per student, based on school enrolmaning open VEMIS (total of 53,766 primary students) Paid per student, based on school enrolmaning open VEMIS (total of 53,766 primary students) Paid per student, based on school enrolmaning open VEMIS (total of 53,766 primary students) Pomary School Grant (Years 1 to 6) Students Primary School Grant (Years 1 to 6) Students Principals must consult the School Community School Community School Community School Community School Community School Communities agree on use of grant 2 Primary School Grant (Years 1 to 6) Students Principals must consult the School Community School Com	1. Provide an economic boost to the local com-		Government and non-Government-assisted		
Vanuatu Australia School Community Grant one-off grant per student * Primary School Grant (Years 1 to 6) 5,780VT Grant spent and reported on within 12 months Beneficiaries * How to use the grant? Principals must consult the School Council and School Community Association on now to use the grant following the three schools Principals and School Councils must on on the implementation of the Vanuatu Australia School Community Grant. * Principals * Principals must consult the School Council and School Community Association on now to use the grant following the three schools </td <td colspan="2">2. Meet a school need outlined in the School Improvement Plan (SIP) or otherwise agreed</td> <td>in Open</td> <td colspan="2"></td>	2. Meet a school need outlined in the School Improvement Plan (SIP) or otherwise agreed		in Open		
Image: Second Grant (Years 1 to 6) 5,780 YT	Vanuatu Australia Scho	ol Community			
 Principals must consult the School Count on now to use the grant following the three criteria above. Students Creating School Community Association on now to use the grant following the three criteria above. The grant may be used for an activity in the existing SIP or a new activity. Examples of some activities could be: Maintenance and minor repairs Building WASH facilities Creating school or community gardens Providing meals for students If you have an idea on how your community could use this grant, contact the Principal and School Council of your loal primary school. Monter formation on the Varuatu Australia School Community Grant, contact your principal or your provincial Education Office (PEO): 			✓ Grant sp		
 Principals must consult the School Count on now to use the grant following the three criteria above. Students Creating School Community Association on now to use the grant following the three criteria above. The grant may be used for an activity in the existing SIP or a new activity. Examples of some activities could be: Maintenance and minor repairs Building WASH facilities Creating school or community gardens Providing meals for students If you have an idea on how your community could use this grant, contact the Principal and School Council of your loal primary school. Monter formation on the Varuatu Australia School Community Grant, contact your principal or your provincial Education Office (PEO): 	Beneficiaries	How to use the g	grant?	Reporting Requirements	
 Students The grant may be used for an activity in the existing SIP or a new activity. Examples of some activities could be: Maintenance and minor repairs Building WASH facilities Creating school or community gardens Creating school or community gardens Providing meals for students If you have an idea on how your community could use this grant, contact the Principal and School Council of your local primary school. Monitoring & Audit of Grant The MoET and Government of Australia will monitor and audit the use of this grant. 		and School Commun how to use the grant	ity Association on		
 Examples of some activities could be: Maintenance and minor repairs Building WASH facilities Creating school or community gardens Providing meals for students If you have an idea on how your community could use this grant, contact the Principal and School Council of your local primary school. Monitoring & Audit of Grant The MoET and Government of Australia will monitor and audit the use of this grant. 	Students			 All recording, reconciling and reporting of the grant must be done on Open VEMIS 	
If you have an idea on how your community could use this grant, contact the Principal and School Council of your local primary school. December 2021. For more information on the Vanuatu Australia School Community Grant, contact your principal or your provincial Education Office (PEO): Monitoring & Audit of Grant The MoET and Government of Australia will monitor and audit the use of this grant.		o Maintenance and o Building WASH fa	l minor repairs acilities	November 2021. ✓ PEOs must compile all schools' reports	
For more information on the Vanuatu Australia School Community Grant, contact your principal or your Provincial Education Office (PEO):		o Providing meals t If you have an idea o community could use	n how your this grant, contact	December 2021. Monitoring & Audit of Grant The MoET and Government of Australia will	
	For more information on the Va	local primary school. nuatu Australia School C			
		-	NMA: 33 800 SHEFA	X: 33 490 TAFEA: 33 910 TORBA: 33 950	





October 2020

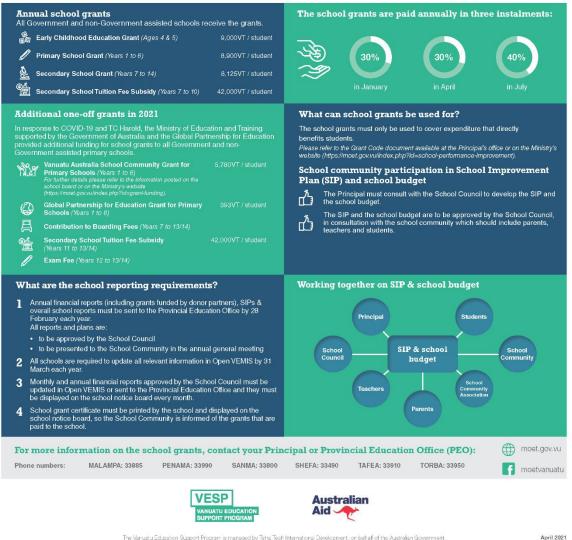
Assessing the impact of COVID-19 on education in Vanuatu | May 2023





School Grant Program

The objectives of the school grant program developed by the Ministry of Education and Training are to increase access to education and training for all, reduce the financial burden on parents in sending their children to school and improve the quality of teaching and learning.



The Varuatu Education Support Program is managed by Tetra Tech International Development, on behalf of the Australian Government.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Annex 2 – Detailed Financial Data

Category Explanation

The OV financial data is broken down according to the following categories.

Income

- Government operating grants and government staff salary grants.
- **Other**. This income source includes donor partners' grants (including the VASCG), application fees, sale of products, fundraisings, church members' contributions/grants, and hire of school assets/equipment, among others.
- **Student**. Including annual student boarding fees, annual student tuition fees, insurance fees, internet fees, library fees, lunch fees, student trips, teaching practice fees, and tutoring extra classes, among others.
- Suspense Account

Expenditure

- Administrative. This category includes advertisement, bank charges, cleaning services, contingency funds, examination and assessment, exhibition exercises, financial services, insurance, photocopying, postage and freight, public relations, public relations, school council, subscriptions, taxes, and travel, among others.
- **Boarding**. This expenditure category includes building maintenance, canteen, food and drinks, medical fees, other boarding expenditure, student activities, supplies and equipment.
- **Development**. Including library, multimedia technology, other development expenditure, scholarship scheme, science laboratory, sports facility, and staff housing.
- Education Supplies. This category includes primarily textbooks, student stationery and expenditure for open and cultural days.
- **Operation and Maintenance**. Maintenance and acquisition of vehicles, buildings, computers, classroom furniture, toilets, science labs, and sports facilities. It also includes petrol, water, gas, and kerosene, among others.
- **Other**. This category is vague. It includes the following items: Church fee subsidy, fund raising, photocopying (already included in Admin expenditure). It seems this category corresponds only to income and was misallocated in expenditure. Most schools do not report any expenditure in this category.
- **Personnel**. Staff expenditure including extra classes incentives, head of department allowances, other personnel expenditure, primary high enrolment incentive, residential assistance allowances, secondary teacher incentives, superannuation fund, teacher appraisals, teaching staff, and terminal benefits.
- **Student**. As in the Other category, it likely corresponded to report income. it includes student fees and internet fees. Most schools did not report any income in this category.
- Suspense Account

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Detailed Financial Data

Descriptive Statistics on Primary Schools Income by Source, 2017-2020

Year	Stats	Government	Other	Student	Suspense Account	TOTAL
	Ν	14	19	17	1	25
	mean	1,329,771	328,585	2,124,860	242,780	2,449,012
2017	sd	877,447	764,361	4,467,945		4,698,535
	min	37,800	960	1,000	242,780	960
	max	2,625,810	3,396,722	16,500,549	242,780	22,083,811
	Ν	198	195	159	16	224
	mean	2,099,434	414,683	618,458	114,448	2,663,916
2018	sd	2,230,945	615,756	1,553,864	251,835	3,300,836
	min	49,840	1,500	1,035	3	4,000
	max	16,123,190	4,144,133	9,970,256	939,709	27,769,171
	N	319	293	200	14	340
	mean	1,938,976	804,852	987,291	74,853	3,096,651
2019	sd	2,894,374	7,277,927	2,607,033	132,259	8,250,556
	min	18,000	5	1,000	8	5,000
	max	26,088,980	124,200,048	20,958,953	467,900	125,701,338
	N	353	277	186	22	359
	mean	1,909,715	357,287	498,555	122,489	2,419,287
2020	sd	2,908,890	947,835	1,189,230	391,285	4,058,898
	min	48,483	3	400	2	40,300
	max	26,042,960	10,116,867	7,935,215	1,778,855	33,887,394
	N	322	303	185	21	333
	mean	2,376,349	903,574	612,973	183,437	3,472,130
2021	sd	3,302,348	1,362,969	1,309,955	532,441	4,850,932
	min	38,121	2,500	500	180	20,000
	max	28,524,925	10,206,480	7,910,975	2,379,668	46,610,624

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Table A - 1

Descriptive Statistics on Secondary Schools Income by Source, 2017-2020

Year	Stats	Government	Other	Student	Suspense Account	Admin	TOTAL
2018	N	43	45	49	5	0	49
	mean	4,049,451	1,641,299	9,133,249	2,481,089		14,447,336
	sd	3,047,993	2,557,773	12,512,380	5,420,989		15,851,232
	min	14,300	12,800	27,500	4,710	•	27,500
	max	14,252,225	13,683,419	58,058,812	12,177,325		66,210,503
2019	Ν	66	67	68	9	0	72
	mean	7,370,294	1,753,049	10,453,915	642,480	•	18,340,865
	sd	5,382,860	3,251,458	16,475,801	1,054,679	•	22,565,349
	min	780,000	600	4,000	4,000	•	4,000
	max	31,430,000	20,701,577	82,984,192	2,693,120	•	116,500,300
2020	Ν	72	67	74	8	0	75
	mean	9,677,290	1,499,505	5,579,291	277,837		16,164,294
	sd	10,756,767	2,522,709	8,058,843	309,137		19,034,775
	min	722,577	9,200	8,500	15,000	•	8,500
	max	63,141,850	14,994,850	50,245,814	916,150	•	119,364,819
2021	N	67	67	73	9	1	75
	mean	14,248,904	2,257,286	11,799,140	299,439	4500	26,266,018
	sd	11,202,456	3,999,810	48,059,982	462,176	•	51,767,336
	min	2,150,125	2	2,000	2,105	4500	2,000
	max	53,022,806	21,298,695	408,391,668	1,332,300	4500	430,998,030

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Table A - 2

Descriptive Statistics on Primary Schools Expenditure by Category, 2017-2020

Year	Statistic	Admin	Boarding	Developm ent	Educ. Supplies	Operation & Maint.	Other	Personnel	Student	Suspense Account	Total
	N	45	45	45	45	45	45	45	45	45	41
	mean	589,829	70,894	339,607	219,804	354,613	0	410,468	0	7,999	2,187,674
2017	sd	1,713,869	270,760	1,080,269	461,517	1,109,350	0	1,336,146	0	30,109	5,211,564
	min	0	0	0	0	0	0	0	0	0	444
	max	10,581,178	1,355,571	7,008,487	2,557,049	6,673,750	0	7,724,721	0	176,013	25,473,056
	N	235	235	235	235	235	235	235	235	235	232
	mean	639,065	56,485	267,053	298,253	294,735	0	726,605	0	68,137	2,380,725
2018	sd	971,093	199,066	472,153	470,673	847,340	0	1,054,643	0	196,803	3,378,158
	min	0	0	0	0	0	0	0	0	0	0
	max	7,223,161	1,546,758	3,198,486	3,131,397	8,389,640	0	7,446,675	0	2,016,821	27,296,480
	Ν	352	352	352	352	352	352	352	352	352	351
	mean	796,467	57,426	323,130	420,669	332,167	48	739,999	0	42,160	2,719,791
2019	sd	1,422,821	215,652	627,301	1,006,456	1,011,302	895	2,048,947	0	135,681	5,372,867
	min	0	0	0	0	0	0	0	0	0	3,043
	max	12,129,093	2,131,755	4,473,034	10,200,438	8,560,915	16,800	31,426,853	0	1,840,940	54,742,974
	Ν	365	365	365	365	365	365	365	365	365	364
	mean	777,220	45,816	202,854	364,075	307,074	193	641,177	0	29,458	2,374,372
2020	sd	1,250,102	152,562	403,785	815,021	765,713	3,185	1,200,962	0	103,711	3,762,880
	min	0	0	0	0	0	0	0	0	0	34,757
	max	11,260,553	1,144,332	3,515,546	8,371,544	7,755,957	60,000	9,445,582	0	1,482,938	30,707,518
	Ν	351	351	351	351	351	351	351	351	351	351
	mean	932,206	74,251	464,749	439,173	455,424	40	643,308	654	19,809	3,029,613
2021	sd	1,505,166	242,583	899,846	845,959	985,662	747	1,059,208	8,810	65,233	4,301,892
	min	217	0	0	0	0	0	0	0	0	7,753
	max	16,809,272	1,945,186	10,441,197	7,831,578	12,214,415	14,000	7,856,338	136,957	524,473	34,971,485

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Table A - 3

Descriptive Statistics on Secondary Schools Expenditure by Category, 2017-2020

Year	Statistic	Admin	Boarding	Development	Educ. Supplies	Operation and Maint	Other	Personnel	Student	Suspense Account	Total
	N	52	46	39	46	49	0	51	0	17	52
	mean	2,857,783	2,478,457	2,104,009	804,816	1,691,995		3,270,916		496,923	12,305,074
2018	sd	2,938,302	2,911,197	4,855,775	1,796,280	1,864,362		4,005,469		467,694	13,640,827
	min	21,782	7,995	26,225	827	5,000		6,600		20,000	37,434
	max	13,540,821	13,306,660	30,129,359	9,151,626	7,284,550		19,856,509		2,000,940	54,040,721
	Ν	70	63	57	65	67	0	67	1	21	69
	mean	4,260,168	2,970,382	2,125,662	1,121,212	2,456,456		4,777,825	56,700	452,061	17,006,870
2019	sd	4,984,439	4,063,619	2,709,776	1,834,630	3,828,412		5,796,488		337,641	19,195,538
	min	500	13,000	43,913	1,304	8,150		46,000	56,700	59,000	500
	max	31,035,323	25,157,826	12,764,728	9,294,916	21,701,800		23,355,746	56,700	1,312,924	114,901,356
	Ν	73	68	64	70	71	2	73	0	23	73
	mean	4,181,111	2,337,880	1,376,443	740,076	2,389,674	97,905	4,689,553		410,682	15,421,101
2020	sd	5,854,063	2,912,703	1,846,064	1,111,857	3,857,680	89,583	5,418,089		565,290	17,056,861
	min	199,211	26,087	3,920	700	62,218	34,560	43,478		17,148	830,419
	max	29,863,590	17,285,902	9,341,917	6,837,981	23,157,497	161,250	25,295,638		2,800,000	107,695,673
	Ν	75	69	66	72	75	0	73	0	23	76
	mean	5,926,801	3,178,531	1,878,411	1,059,986	2,499,283		4,740,354		981,209	18,686,615
2021	sd	6,626,388	3,606,843	1,951,159	1,162,153	3,262,840		4,933,487		2,117,802	18,018,200
	min	384,309	10,026	15,000	8,261	85,221		6,000		17,391	316,692
	max	34,211,231	18,199,353	7,818,623	6,511,621	14,312,976		21,810,621		9,000,000	82,504,843

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Sample Size and Average Income by Province and Income Source – Primary Schools 2017-2021

Year	Stats	Government	Other	Student	Suspense Account	TOTAL	Yea	r Stats	Government	Other	Student	Suspense Account	TOTAL
Torba Provin							Mal	lalampa Province					
	N	-	-	-	-	-	004	N	7	8	7	-	9
2017	mean	-	-	-	-	-	201	/ mean	1,258,026	153,149	235,951	-	1,298,115
2018	N	1	1	1	1	1	201	N	73	71	57	1	79
2010	mean	5,113,300	1,016,520	1,443,180	3	7,573,003	201	mean	1,502,380	380,397	203,929	47,270	1,877,887
2019	Ν	11	6	3	2	11	201	N	78	76	58	2	81
2019	mean	1,203,585	124,122	288,380	3,269	1,350,531	201	mean	1,242,491	210,610	250,623	234,120	1,579,322
2020	Ν	20	13	7	-	20	202	N	80	66	48	2	80
2020	mean	1,013,286	87,789	39,749	-	1,084,261	202	mean	1,157,035	176,464	180,710	34,834	1,411,914
2021	Ν	15	10	3	2	16	202	1 N	80	73	52	4	80
2021	mean	1,529,788	749,001	99,533	10,600	1,922,290	202	mean	1,578,246	515,154	269,013	707,515	2,258,558
Sanma	а						She	fa Province					
2017	N	1	2	2	-	4	201	7 N	4	8	8	1	10
2017	mean	37,800	296,725	108,275	-	211,950	201	mean	1,486,343	543,909	4,281,801	242,780	4,479,383
2018	Ν	77	71	66	9	79	201	8 N	9	18	21	1	23
2010	mean	2,732,436	597,531	637,562	170,698	3,752,375	201	mean	2,334,059	291,083	1,975,704	37,390	2,946,661
2019	Ν	79	75	60	5	80	201	9 N	34	35	44	1	47
2010	mean	2,246,941	443,347	616,632	16,495	3,097,998	201	mean	4,752,602	980,130	3,073,846	134,095	7,048,433
2020	N	78	70	47	13	78	202	n N	54	43	46	3	58
	mean	2,146,208	396,993	387,767	2,218	2,736,508		mean	4,029,602	906,323	1,324,041	242,577	5,486,276
2021	N	77	77	53	10	78	202	1 N	36	35	36	2	40
	mean	2,788,214	1,023,237	548,927	23,105	4,138,538		mean	5,396,455	2,002,281	1,687,238	357,268	8,145,183
Penan	na Provinc	ce	1				Tafe	ea Province					
2017	N	-	-	-	-	-	201	7 N	2	1	-	-	2
	mean	-	-	-	-	-		mean	1,913,720	73,190	-	-	1,950,315
2018	N	0	1	1	-	1	201	8 N	38	33	13	4	41
	mean		118,990	54,570	-	173,560		mean	1,828,863	153,192	126,482	52,558	1,863,577
2019	N	54	43	22	3	58	201		63	58	13	1	63
	mean	1,120,620	3,240,506	275,553	95,801	3,555,255		mean	1,726,499	209,884	288,281	69,190	1,980,311
2020	N	58	45	25	4	60	202	0 N	63	40	13	-	63
	mean	1,221,152	305,852	140,560	467,131	1,499,545		mean	1,674,148	141,395	87,237	-	1,781,924
2021	N	58	55	24	3	60	202	1 N	56	53	17	-	59
	mean	1,353,841	602,869	178,519	18,447	1,933,673		mean	2,294,467	880,373	293,794	-	3,053,295

Assessing the impact of COVID-19 on education in Vanuatu | May 2023 Size Sample and Average Income by Province and Income Source – Secondary Schools 2018-2021

Year	Stats	Government	Other	Student	Suspense Account	TOTAL	Year	Stats	Government	Other	Student	Suspense Account	Admin	TOTAL
	orba vince						Malan	npa Prov	ince					
2018	N	1	1	1	-	1	2018	Ν	11	12	12	-		12
2010	mean	1,043,250	20,510	1,210,455	-	2,274,215	2010	mean	4,515,511	1,830,895	6,198,149	-		12,168,262
2019	Ν	1	-	-	-	1	2019	Ν	13	13	13	-		13
2013	mean	3,723,275	-	-	-	3,723,275	2013	mean	6,832,585	1,758,369	5,417,707	-		14,008,660
2020	Ν	1	1	1	-	1	2020	Ν	13	13	13	-		13
2020	mean	1,108,800	2,185,046	9,281,845	-	12,575,691	2020	mean	7,039,876	1,702,501	4,308,125	-		13,050,502
2021	Ν	1	0	1	-	1	2021	Ν	13	12	13	1		13
2021	mean	19,369,525	-	2,927,139	-	22,296,664	2021	mean	9,930,921	3,689,182	5,380,954	605,800		18,763,874
	nma vince						Shefa	Provinc	e					
2018	Ν	10	10	10	3	10	2018	Ν	4	4	5	1		5
2010	mean	5,444,034	2,870,365	21,892,496	4,062,698	31,425,705	2010	mean	1,228,513	1,241,788	14,335,808	199,730		16,351,994
2019	N	10	10	10	3	10	2019	Ν	9	9	11	2		11
2019	mean	9,753,763	3,051,616	20,315,179	64,352	33,139,864	2019	mean	11,317,490	4,337,422	26,918,815	1,392,709		39,980,600
2020	Ν	9	9	10	2	10	2020	Ν	10	9	11	2		12
2020	mean	18,591,888	2,185,434	8,608,912	375,264	27,383,554	2020	mean	19,397,267	2,661,956	12,266,774	196,650		29,438,175
2021	Ν	8	10	11	1	11	2021	Ν	8	7	8	1	1	9
2021	mean	26,733,849	5,042,343	11,428,390	598,611	35,509,557	2021	mean	22,706,506	3,146,773	14,852,838	10,365	4,500	35,835,224
Penan	na Provin	се					Tafea	Province	e					
2018	N	2	3	3	-	3	2018	N	5	6	7	-		7
2010	mean	4,688,250	123,153	1,991,217	-	5,239,870	2010	mean	3,884,203	2,219,815	7,806,394	-		12,483,523
2019	N	9	10	11	2	11	2019	Ν	9	9	8	-		9
2019	mean	5,766,844	830,301	4,561,200	1,390,490	10,287,163	2019	mean	7,124,389	1,407,737	8,352,103	-		15,956,217
2020	N	11	11	11	2	11	2020	Ν	10	9	10	-		10
2020	mean	6,769,426	1,367,629	4,975,075	467,325	13,197,098	2020	mean	7,520,708	1,372,856	4,864,997	-		13,621,275
2021	N	12	12	12	4	12	2024	N	9	8	10	-		10
2021	mean	14,395,160	1,837,623	38,488,642	367,512	54,843,929	2021	mean	13,840,493	727,000	4,711,637	-		17,749,680

Assessing the impact of COVID-19 on education in Vanuatu | May 2023 Size Sample and Average Expenditure by Province and Expense Category – Primary Schools 2017-2021

Year	Stats	Admin	Boarding	Devp.	Ed. Supplies	Op. and Maint	Personne I	Suspense Account	Total	Year	Stats	Admin	Boardin g	Devp.	Ed. Supplies	Op. and Maint	Personne I	Suspense Account	Total
Torba Pro	vince									Malan	npa Provir	nce							
2017	N	1	1	1	1	1	1	1	1	2017	N	16	16	16	16	16	16	16	16
2017	mean	347,870	0	0	0	0	0	0	347,870	2017	mean	266,550	4,622	185,068	255,713	96,126	194,225	7,158	1,009,462
2018	N	1	1	1	1	1	1	1	1	2018	N	81	81	81	81	81	81	81	80
2018	mean	989,220	95,070	1,725,515	1,394,900	810,866	1,711,320	0	6,726,891	2018	mean	441,536	22,382	200,650	205,088	158,730	500,388	45,235	1,593,684
2019	N	15	15	15	15	15	15	15	15	2019	N	82	82	82	82	82	82	82	82
2019	mean	444,937	42,168	345,769	350,269	221,164	116,245	44,923	1,565,475	2019	mean	459,552	25,719	254,359	248,863	114,679	348,544	29,123	1,480,840
2020	N	21	21	21	21	21	21	21	20		N	82	82	82	82	82	82	82	82
2020	mean	470,241	17,620	113,940	261,772	127,480	162,145	18,970	1,230,776	2020	mean	415,690	26,623	239,849	234,806	111,136	332,377	21,182	1,381,662
0004	N	20	20	20	20	20	20	20	20	0004	N	81	81	81	81	81	81	81	81
2021	mean	656,957	1,576	156,106	258,859	210,255	128,611	26,529	1,443,518	2021	mean	567,656	43,702	486,944	277,404	166,948	332,106	18,137	1,893,069
Sanma Pr	ovince									Shefa	Province								
2017	N	9	9	9	9	9	9	9	6	2017	N	13	13	13	13	13	13	13	13
2011	mean	44,182	0	1,889	9,721	19,166	15,155	7,711	146,735	2011	mean	1,595,331	239,713	926,722	439,406	1,090,356	1,149,009	13,539	5,454,077
2018	N	79	79	79	79	79	79	79	79	2018	N	29	29	29	29	29	29	29	28
2010	mean	745,035	107,680	397,888	328,880	359,049	1,068,492	108,930	3,115,955	2010	mean	1,116,052	66,141	201,223	550,300	672,272	752,666	123,007	3,606,006
2019	N	80	80	80	80	80	80	80	80	2019	N	54	54	54	54	54	54	54	53
2019	mean	864,990	113,519	435,456	382,739	346,279	888,005	65,806	3,096,794	2019	mean	1,940,748	117,387	471,335	1,241,434	1,057,110	1,963,851	85,595	7,007,541
2020	N	79	79	79	79	79	79	79	79	2020	N	60	60	60	60	60	60	60	60
2020	mean	728,217	91,093	168,155	363,295	400,695	795,957	43,975	2,591,517	2020	mean	1,828,213	58,234	279,941	952,766	773,323	1,446,230	25,789	5,364,495
0004	N	79	79	79	79	79	79	79	79	0004	N	51	51	51	51	51	51	51	51
2021	mean	952,590	136,591	392,302	412,862	659,864	850,682	24,349	3,429,240	2021	mean	2,035,598	106,799	818,623	1,225,177	1,036,900	1,228,323	22,853	6,476,959
Penama P	rovince									Tafea	Province								
2017	N	-	-	-	-	-	-	-	-	2017	N	6	6	6	6	6	6	6	5
2011	mean	-	-	-	-	-	-	-	-		mean	132,117	0	42,808	0	12,074	48,328	0	282,391
2018	N	2	2	2	2	2	2	2	2	2018	N	43	43	43	43	43	43	43	42
2010	mean	59,600	0	34,590	64,743	9,000	73,034	0	240,966	2010	mean	513,585	21,886	173,059	232,857	179,438	514,537	4,083	1,678,479
2019	N	58	58	58	58	58	58	58	58	2019	N	63	63	63	63	63	63	63	63
2013	mean	434,826	6,128	227,179	157,162	161,981	255,459	32,617	1,275,352	2019	mean	583,801	26,929	225,917	248,296	159,053	607,150	0	1,851,146
2020	N	60	60	60	60	60	60	60	60	2020	N	63	63	63	63	63	63	63	63
2020	mean	570,504	22,293	216,942	129,484	214,257	272,411	59,924	1,485,815	2020	mean	607,486	33,998	141,019	230,172	148,921	593,186	0	1,755,733
0004	N	60	60	60	60	60	60	60	60	0001	N	60	60	60	60	60	60	60	60
2021	mean	634,557	22,295	473,651	262,260	303,313	342,279	29,502	2,067,858	2021	mean	849,027	81,927	323,362	261,116	315,266	765,717	1,567	2,597,981

Assessing the impact of COVID-19 on education in Vanuatu | May 2023 Size Sample and Average Expenditure by Province and Expense Category – Secondary Schools 2018-2021

Ye ar	Stats	Admin	Boarding	Devp.	Ed. Supplies	Op. and Maint	Personnel	Suspens e Account	Total	Yea r	Stats	Admin	Boarding	Devp.	Ed. Supplies	Op. and Maint	Personnel	Suspens e Account	Total
Torba Pr	rovince									Malampa	a Province								
2018	N	1	1	1	1	1	1	0	1	2018	N	12	11	11	12	11	12	2	12
2010	mean	972,742	668,858	130,700	47,912	456,278	942,150	-	3,218,640	2010	mean	2,953,476	2,779,055	1,376,627	354,119	1,339,410	2,625,565	306,440	11,021,401
2019	N	1	1	-	-	1	-	1	0	2019	N	13	12	12	12	13	13	4	13
2013	mean	38,165	13,000	-	-	28,930	-	80,095	•	2013	mean	2,879,680	3,038,698	1,905,027	811,632	1,466,115	2,970,481	264,940	12,710,434
2020	N	1	1	1	1	1	1	0	1	2020	N	13	12	11	13	13	13	6	13
2020	mean	2,614,227	2,163,791	833,748	310,124	1,759,679	4,328,120	-	12,009,689	2020	mean	2,562,244	3,058,951	1,159,916	523,052	1,646,266	3,098,823	203,146	11,729,259
2021	N	1	1	1	1	1	1	0	1	2021	N	13	13	12	13	13	13	6	13
2021	mean	4,702,674	2,186,585	1,856,774	1,148,153	3,419,061	5,515,226		18,828,473	2021	mean	4,315,068	3,996,645	1,568,572	622,642	1,520,527	3,197,164	1,285,392	15,693,217
Sanma F	Province									Shefa Pr	ovince								
2018	N	10	9	10	10	10	10	7	10	2018	N	7	6	4	6	6	7	4	7
2010	mean	5,991,926	4,834,384	4,973,872	2,233,741	3,582,364	7,951,610	315,877	29,305,572	2010	mean	2,627,497	2,526,985	311,523	280,599	2,384,278	2,397,811	945,524	10,193,788
2019	N	10	8	9	10	10	10	5	10	2019	N	11	10	8	10	11	10	5	11
2013	mean	5,215,731	4,399,696	3,837,042	2,201,110	4,698,005	8,686,465	413,206	27,981,008	2013	mean	9,833,585	5,694,614	3,137,769	2,116,857	5,500,957	10,968,733	689,949	35,003,081
2020	N	9	8	8	7	9	9	4	9	2020	N	11	9	8	11	10	11	5	11
2020	mean	4,957,510	3,230,571	2,533,481	2,105,735	5,122,687	9,815,880	356,331	26,815,841	2020	mean	10,607,712	4,145,681	1,882,846	1,035,345	6,840,354	8,223,785	968,992	31,287,061
2021	N	10	9	9	10	10	10	6	10	2021	N	11	9	9	10	11	9	2	11
2021	mean	9,039,175	4,815,633	2,970,195	1,965,724	5,878,315	9,178,363	1,784,235	34,139,362	2021	mean	10,718,047	4,270,611	1,687,936	1,108,958	4,844,206	8,203,527	606,292	28,267,783
Penama	Province									Tafea Pr	ovince								
2018	N	3	3	1	2	3	3	0	3	2018	N	7	7	4	5	7	7	1	7
2010	mean	415,879	601,993	142,224	76,686	379,592	429,109		1,925,104	2010	mean	2,770,533	2,236,024	1,361,638	984,115	1,527,818	3,791,552	645,093	11,899,100
2019	N	11	10	7	10	10	10	3	11	2019	N	8	8	7	8	7	8	1	8
2013	mean	3,723,538	2,316,393	2,110,684	474,505	1,001,225	2,971,638	494,450	11,350,424	2013	mean	3,617,056	2,954,370	521,458	1,024,529	2,643,918	4,295,258	475,613	14,720,367
2020	N	11	11	9	11	11	11	4	11	2020	N	10	10	9	10	10	10	0	10
2020	mean	4,432,104	1,913,990	1,052,765	298,895	698,048	3,753,496	220,750	12,038,159	2023	mean	3,265,347	2,283,711	656,271	707,889	1,466,245	5,123,698	-	13,440,990
2021	N	12	12	10	11	12	12	5	12	2021	N	9	9	7	10	10	9	0	10
2021	mean	7,174,342	3,369,719	2,629,583	1,034,601	1,848,067	4,184,042	345,809	19,859,960	2021	mean	5,546,481	2,752,294	786,491	1,464,501	1,737,690	5,690,687	•	16,343,251

Annex 3 – Detailed Phone Survey Details & Results

Survey Design

Identification of the survey population group

Details for 531 schools were provided by the Ministry of Education and Training.³¹ The process for choosing schools was as follows:

- 1) Remove all schools for which there were no phone numbers there were 462 remaining schools
- 2) Split the schools into four groups: rural primary schools, rural secondary schools, urban primary schools, urban secondary schools
- 3) Within each group, Pacific Consulting Limited randomly selected x schools, where x is the percentage of all schools which that subset makes up for example, rural primary schools make up 74% of all schools, and so 74 rural primary schools were randomly chosen from all the rural primary schools. There was no attempt to control for province.

The table below provides a breakdown of the schools which were reached, by province and school type. The percentage in brackets reflects the proportion of schools in that category of the 100 identified schools which were reached – for example there were 16 rural primary schools in Shefa which were part of the 100 identified schools, and the survey team reached 44% (7) of them.

Province	Primary	Schools	Secon	dary Schools	Total
FIOVINCE	Rural	Urban	Rural	Urban	
Shefa	7 (44%)	4 (67%)	0 (0%)	0 (0%)	11 (39%)
Sanma	10 (71%)	-	4 (??%)	-	14 (74%)
Penama	1 (10%)	-	-	-	1 (10%)
Torba	2 (50%)	-	0 (0%)	-	2 (40%)
Tafea	10 (56%)	-	0 (0%)	-	10 (48%)
Malampa	3 ³² (25%)	-	0 (0%)	-	3 (18%)
Total	33 (45%)	4 (67%)	4 (24%)	0 (0%)	41 (41%)

Testing for Bias

The main question for the validity of the survey was whether the schools selected were representative (i.e. unbiased). The survey sought to eliminate potential bias by randomising which schools were

³¹ Data include: School ID, School name, School address, iCode, School type, school contact, School language, School authority and Geographical

³² One of the schools only completed half the survey due to having insufficient time

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

chosen (within their sub-categories). However, several potential biases persisted, which are examined below.

Potential bias	Hypothetical bias mechanism
Only schools which had phone numbers were randomly selected.	Schools without a recorded phone number are more likely to be remote and have school leaders who do not provide details as requested. One would expect these missed schools to be under performing.
Only 41% of the chosen schools answered their phone or had working phone numbers.	Schools that have working phone numbers or principals who answer the phone are more likely to be higher performing

It is possible to test the possible presence of these biases by comparing variables for different groups. For example, schools with a phone number in the MoET database versus those without, and schools that successfully answered the survey versus schools that the survey team could not reach. These tests are helpful to decide if differences between groups do exist. However, due to the omitted variables, it is impossible to decide if differences do not exist.

	Schools with a phone number	Schools without a phone number	Full population
Average VANSTA Score	25.1	26.0	25.2
Average Enrolment	148	141	147

Schools with a phone number recorded with MoET had a statistically significant lower average VANSTA score than schools without a phone number.³³ This is a surprising and counterintuitive finding. There was no statistical difference in terms of the average size of the schools.

The next bias to check for is within the 100 selected schools to see if there were differences between schools that answered the survey compared to schools that did not, as well as comparing the surveyed group to the wider school population.

	Successful Survey	Survey failed	Other schools	Full Population
Number of schools	41	59	422	522
Average VANSTA Score	25.2	24.4	25.3	25.2
Average Enrolment	200	114	146	147

There was a statistically significant difference between the schools' learning outcomes for the 41 schools the survey team successfully reached compared to the 59 the team did not. However, there was no difference when comparing successfully surveyed schools with schools not selected for the survey or when comparing with the overall population.

The schools in the survey were about 25% larger than the average school size. Within the 100 schools chosen for the survey, there was a sharp difference in size between schools that answered the survey (200) compared to those that did not (114). Therefore, the question is whether a school's size influences its ability to deliver education. It is unknown which direction this potential bias could go. For example, a larger school could theoretically have more financial and human resources to

³³ Using a two-tailed t-test with a 95% confidence interval

adapt to change and challenges.³⁴ Conversely, larger schools are more likely to be based in urban areas, where they are generally more exposed to tourism and potentially more impacted by border closure.

Survey Results

What was the impact of the international border closures on the local community last year?

	All	Shef a	San ma	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
n	41	12	13	10	6	26	15	37	4
Major Negative Impact	71 %	83%	46%	80%	83%	77%	60%	73%	50%
Minor Negative Impact	20 %	17%	23%	20%	17%	15%	27%	19%	25%
No Change	5%	0%	15%	0%	0%	4%	7%	5%	0%
Minor Positive Impact	2%	0%	8%	0%	0%	4%	0%	0%	25%
Major Positive Impact	0%	0%	0%	0%	0%	0%	0%	0%	0%
Can't Remember/Un sure	2%	0%	8%	0%	0%	0%	7%	3%	0%

Compared to before the borders closed, what was attendance like at your school in 2021 vs 2019?

	AII	Shef a	San ma	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
n	41	12	13	10	6	26	15	37	4

³⁴ For example, every school had to install hand washing stations, an additional cost which was unbudgeted for. The cost of these stations would not vary much between schools and would therefore be a far lower proportion of a larger school's budget than a smaller school.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

A lot better than before COVID- 19	32 %	42%	31%	40%	0%	23%	47%	24%	100%
A bit worse than before COVID- 19	10 %	17%	0%	10%	17%	4%	20%	11%	0%
No real change	37 %	25%	46%	20%	67%	50%	13%	41%	0%
A bit better than before COVID- 19	7%	8%	0%	10%	17%	12%	0%	8%	0%
A lot worse than before COVID- 19	10 %	8%	15%	10%	0%	12%	7%	11%	0%
Can't remember/unsur e	5%	0%	8%	10%	0%	0%	13%	5%	0%

As a school, did you find it harder to deliver education in 2021 vs 2019?

	All	Shef a	Sanm a	Tafe a	Other Provinc e	Governme nt	Non- Governme nt	Primar y	Seconda ry
n	41	12	13	10	6	26	15	37	4
Yes, a lot harder	51%	50%	46%	70%	33%	54%	47%	51%	50%
Yes, a bit harder	27%	25%	38%	10%	33%	23%	33%	24%	50%
No change	15%	25%	8%	10%	17%	19%	7%	16%	0%
It was easier	2%	0%	0%	10%	0%	0%	7%	3%	0%
Unsure	5%	0%	8%	0%	17%	4%	7%	5%	0%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	All	Shef a	Sanm a	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Seconda ry
n	32	9	11	8	4	20	12	28	4
Reduced attendance- students	47%	56%	45%	38%	50%	50%	42%	46%	50%
Reduced support from MoET	44%	67%	36%	25%	50%	50%	33%	50%	0%
Increased uncertainty	81%	67%	91%	75%	100%	75%	92%	82%	75%
Impact of TC Harold	25%	22%	45%	13%	0%	20%	33%	21%	50%
Quality of teaching went down	63%	67%	55%	63%	75%	70%	50%	68%	25%
Teacher attendance	56%	44%	45%	75%	75%	65%	42%	61%	25%
Teacher Motivation	50%	44%	27%	75%	75%	50%	50%	57%	400%
Financial hardship	63%	67%	64%	63%	50%	50%	83%	0%	0%
Poor Transportati on service	6%	0%	9%	13%	0%	5%	8%	7%	0%
Poor network connections	3%	0%	0%	0%	25%	5%	0%	4%	0%
Lack internet	0%	0%	0%	0%	0%	0%	0%	0%	0%
Natural Disasters	3%	0%	9%	0%	0%	5%	0%	4%	0%

If it was harder, what were the reasons behind this? (Select all that apply)

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Lack of infrastructur	3%	0%	9%	0%	0%	0%	8%	0%	25%
е									

What has happened to the number of community-supported teachers?

	AII	She fa	San ma	Taf ea	Other Provin ce	Governm ent	Non- Governm ent	Prim ary	Second ary
n	39	12	12	10	5	25	14	35	4
No community teachers	5%	0%	17%	0%	0%	4%	7%	3%	25%
Increase	13 %	0%	17%	30 %	0%	16%	7%	11%	25%
Decrease	31 %	42 %	25%	20 %	40%	32%	29%	34%	0%
No change	51 %	58 %	42%	50 %	60%	48%	57%	51%	50%

What do you think happened to the quality of teaching your school delivered last year?

	All	Shef a	San ma	Tafe a	Other Provin ce	Governm ent	Non- Government	Prima ry	Second ary
n	40	12	12	10	6	26	14	36	4
It improve d a lot	20 %	25%	17%	0%	50%	27%	7%	19%	25%
It improve d a bit	43 %	42%	25%	80%	17%	38%	50%	47%	0%
No change	25 %	25%	33%	10%	33%	19%	36%	22%	50%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

It got a bit worse	10 %	0%	25%	10%	0%	12%	7%	8%	25%
It got a lot worse	3%	8%	0%	0%	0%	4%	0%	3%	0%

How helpful was the Ministry of Education and Training and other authorities during the past two years?

	All	Shef a	Sanm a	Tafe a	Other Provin ce	Governme nt	Non- Governme nt	Prima ry	Seconda ry
n	40	12	12	10	6	26	14	36	4
Very helpful	38%	17%	42%	40%	67%	42%	29%	36%	50%
A bit helpful	50%	58%	50%	50%	33%	46%	57%	53%	25%
Not at all helpful	13%	25%	8%	10%	0%	12%	14%	11%	25%

On a scale of 1-10, rate how useful each of the following was?

	Vanuatu Australia Community School Grants	Tuition fee subsid y	Exam fee subsid y	Boardin g fee subsidy	Hom Skul package s	Online learning modules	Givha n radio show
Average Score	9.5	8.7	8.8	9.4	6.5	7.7	4.4
Number of Respondents	37	31	18	8	32	7	7

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	All	Shefa	Sanm a	Tafea	Other Provinc e	Governme nt	Non- Governme nt	Primar y	Seconda ry
	40	12	13	10	5	26	14	36	4
Less	30%	25%	38%	20%	40%	35%	21%	31%	25%
More	43%	42%	46%	50%	20%	38%	50%	42%	50%
No chang e	25%	33%	8%	30%	40%	27%	21%	25%	25%
Unsur e	3%	0%	8%	0%	0%	0%	7%	3%	0%

Compared to 2019, do you think your students learnt more or less in 2021?

For how many weeks was your school closed for in the most recent lockdown? (Average results)

	AII	She fa	San ma	Taf ea	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
Average score	7.4	8.3	7.8	5.0	8.4	7.3	7.5	7.2	8.5
n	40	12	13	10	5	26	14	36	4

How did you try and continue to deliver education? (select all that apply)

	AII	Shef a	San ma	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
	40	12	13	10	5	26	14	36	4
MoET Hom Skul packages	33 %	17%	54%	30%	20%	27%	43%	33%	25%
Classes	5%	0%	0%	20%	0%	4%	7%	6%	0%
Home school packages	68 %	83%	54%	60%	80%	77%	50%	69%	50%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

prepared by the school									
Online modules	10 %	8%	23%	0%	0%	8%	14%	3%	75%

Roughly what proportion of your students were able to access these learning materials?

	All	Shef a	Sanm a	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Seconda ry
n	39	12	13	9	5	25	14	35	4
Almost all (90-100%)	10%	17%	15%	0%	0%	12%	7%	11%	0%
75-90%	41%	42%	38%	44%	40%	44%	36%	46%	0%
50-75%	23%	17%	31%	22%	20%	28%	14%	20%	50%
25-50%	23%	25%	15%	33%	20%	12%	43%	20%	50%
0-25%	3%	0%	0%	0%	20%	4%	0%	3%	0%

Were the MoET Hom Skul packages accessible to students?

	All	Shef a	Sanm a	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Seconda ry
n	26	6	10	7	3	15	11	23	3
Very accessible	12%	0%	30%	0%	0%	0%	27%	13%	0%
Slightly accessible	35%	0%	40%	57%	33%	40%	27%	30%	67%
Not very accessible	31%	67%	20%	29%	0%	40%	18%	35%	0%
Unsure	23%	33%	10%	14%	67%	20%	27%	22%	33%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	All	Shef a	San ma	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
n	23	3	10	7	3	13	10	20	3
The content was high quality	48 %	33%	80%	14%	33%	46%	50%	50%	33%
The content was not as good as	13 %	0%	0%	43%	0%	8%	20%	15%	0%
The content was not good enough	22 %	67%	10%	29%	0%	31%	10%	20%	33%
Unsure	17 %	0%	10%	14%	67%	15%	20%	15%	33%

What did you think of the quality of the MoET packages?

What has been the impact of the lockdown on the children's learning?

	All	Shef a	Sanm a	Tafe a	Other Provinc e	Governme nt	Non- Governme nt	Primar y	Seconda ry
n	39	12	13	9	5	25	14	35	4
Major impact	92%	92%	92%	89%	100%	88%	100%	91%	100%
Minor impact	8%	8%	8%	11%	0%	12%	0%	9%	0%
No Impact	0%	0%	0%	0%	0%	0%	0%	0%	0%
Positive impact	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	AII	She fa	San ma	Taf ea	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
n	40	12	13	10	5	26	14	36	4
It is a lot lower than before lockdown	30 %	42%	15%	40 %	20%	35%	21%	33%	0%
It is a bit lower than before lockdown	43 %	33%	38%	50 %	60%	42%	43%	42%	50%
No change	20 %	17%	31%	10 %	20%	15%	29%	17%	50%
It is a bit better than before lockdown	0%	0%	0%	0%	0%	0%	0%	0%	0%
It is a lot better than before lockdown	8%	8%	15%	0%	0%	8%	7%	8%	0%

Since returning back to school, what has happened to attendance?

Did your school receive Vanuatu Australia Community School grant?

	All	Shefa	Sanm a	Tafea	Other Provinc e	Governme nt	Non- Governme nt	Primar y	Seconda ry
n	40	12	13	10	5	26	14	36	4
Yes	78%	75%	69%	80%	100%	88%	57%	83%	25%
No	23%	25%	31%	20%	0%	12%	43%	17%	75%

The following questions are just for those which received the VASCG

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	All	Shefa	Sanm a	Tafea	Other Provinc e	Governme nt	Non- Governme nt	Primar y	Seconda ry
n	31	9	9	8	5	23	8	30	1
Yes	55%	33%	67%	63%	60%	52%	63%	53%	100%
No	45%	67%	33%	38%	40%	48%	38%	47%	0%

Did your school receive the Vanuatu Australia Community School Grant posters?

How did the grant support your school in responding to COVID-19?

	All	She fa	San ma	Taf ea	Other Provin ce	Govern ment	Non- Govern ment	Prim ary	Second ary
n	31	9	9	8	5	23	8	30	1
Building wash facilities	94 %	100 %	78%	100 %	100%	96%	88%	93%	100%
Creating school or community gardens	45 %	44 %	11%	75 %	60%	39%	63%	47%	0%
Maintenance and minor repairs	81 %	89 %	67%	75 %	100%	74%	100%	83%	0%
Providing meals for students	32 %	56 %	11%	38 %	20%	30%	38%	33%	0%
Buying learning materials	81 %	78 %	78%	88 %	80%	78%	88%	80%	100%
General support	19 %	0%	22%	25 %	40%	22%	13%	17%	100%
Reducing fees and charges for parents	52 %	56 %	56%	50 %	40%	48%	63%	50%	100%
medical equipment	6%	11 %	0%	13 %	0%	4%	13%	7%	0%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

School Land lease	3%	0%	0%	13 %	0%	0%	13%	3%	0%
Children's Day	3%	0%	0%	13 %	0%	0%	13%	3%	0%
Library	6%	0%	11%	13 %	0%	9%	0%	7%	0%
Fencing	3%	11 %	0%	0%	0%	4%	0%	3%	0%
Transport	6%	0%	11%	13 %	0%	9%	0%	7%	0%
Rubbish Bin	3%	0%	11%	0%	0%	4%	0%	3%	0%
School clean up	3%	0%	11%	0%	0%	0%	13%	3%	0%
Poultry Project	3%	0%	0%	0%	20%	4%	0%	3%	0%

How helpful was the school grant to your school?

	All	She fa	San ma	Taf ea	Other Provin ce	Govern ment	Non- Govern ment	Prim ary	Second ary
n	31	9	9	8	5	23	8	30	1
Very helpful	94 %	78 %	100 %	100 %	100%	96%	88%	93%	100%
A bit helpful	6%	22 %	0%	0%	0%	4%	13%	7%	0%
It didn't really make much difference	0%	0%	0%	0%	0%	0%	0%	0%	0%
Unhelpful	0%	0%	0%	0%	0%	0%	0%	0%	0%
Not at all Valuable	0%	0%	0%	0%	0%	0%	0%	0%	0%
Unsure	0%	0%	0%	0%	0%	0%	0%	0%	0%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

How would you recommend to improve the Ministry of Education and Training Vanuatu Australia Community School Grant process in the future?

	All	Shef a	San ma	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
n	39	11	15	8	5	31	8	38	1
Faster than the current process	26 %	45%	7%	38%	20%	19%	50%	26%	0%
Slower than the current process	0%	0%	0%	0%	0%	0%	0%	0%	0%
Maintain the current process	36 %	18%	27%	50%	80%	39%	25%	34%	100%
Unsure	0%	0%	0%	0%	0%	0%	0%	0%	0%
Increase grant	3%	9%	0%	0%	0%	0%	13%	3%	0%
All schools should provide data	3%	0%	7%	0%	0%	3%	0%	3%	0%
Continue providing us with the grant	10 %	9%	20%	0%	0%	13%	0%	11%	0%
Provide the grant at the right time	3%	0%	0%	13%	0%	0%	13%	3%	0%

How valuable was the school grant to the community?

	All	Shef a	Sanm a	Tafe a	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Seconda ry
Extremely valuable	68%	56%	67%	88%	60%	70%	63%	67%	100%

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Quite valuable	29%	33%	33%	13%	40%	26%	38%	30%	0%
A bit valuable	3%	11%	0%	0%	0%	4%	0%	3%	0%
Not really valuable	0%	0%	0%	0%	0%	0%	0%	0%	0%
Unhelpful	0%	0%	0%	0%	0%	0%	0%	0%	0%
Unsure	0%	0%	0%	0%	0%	0%	0%	0%	0%

How many people were impacted by the support?

	AII	She fa	San ma	Taf ea	Other Provin ce	Governm ent	Non- Governm ent	Prima ry	Second ary
n	31	9	9	8	5	23	8	30	1
Less Than 100	3%	11%	0%	0%	0%	4%	0%	3%	0%
101-200	6%	0%	11%	0%	20%	0%	25%	7%	0%
201-300	13 %	22%	11%	0%	20%	17%	0%	13%	0%
301+	3%	0%	0%	13 %	0%	0%	13%	3%	0%
All of the school Community	74 %	67%	78%	88 %	60%	78%	63%	73%	100%
Small group within School Community	0%	0%	0%	0%	0%	0%	0%	0%	0%

Annex 4 – Detailed case studies

Ebenezer Primary School

Ebenezer Primary School is located in remote South Santo, an area surrounded by rivers and subject to flooding. The school teaches 294 students in Years 1 to 8 and employs 11 teachers and 3 ancillary staff.

Despite TC Harold damaging many of the school's older, traditionally constructed buildings, the school remained open during the 2021 academic year. As South Santo's rural community is mostly self-sufficient in food, only a small number of students missed school due to financial losses caused by the COVID-19-related border closures. However, when Santo experienced its first confirmed local case of COVID-19 in early 2022, the subsequent shutdown of the school from March to May dramatically affected Ebenezer's ability to continue serving the student community.

The arrival in 2021 of VUV1,034,620 in VASCG support helped the school overcome many of its challenges. The support assisted with constructing a new boys' dormitory for 34 students, which benefited the school community in several ways. More boys could attend school during heavy rains and flooding. This also meant the boys could assist with the community garden, enhancing the availability of fresh fruit and vegetables. The girls could also help, as the cyclone did not damage their dormitory.

The school learned of the VASCG via a MoET email and a public announcement posted in the Santo Education Office. School Principal Tavuipeli found the additional information he needed on the Ministry's website.

The VASCG also freed up other funding to allow the school to construct handwashing stations and repurpose an old dormitory into a classroom for year 7 students after TC Harold damaged it in 2020. A local construction company built the classroom by hiring local tradespersons and using local materials.

According to Ebenezer School Principal, Mr Aru Tavuipeli, Australia's support benefited students, their families, teachers, staff, and the broader community.

'Thanks to the Australian grant funding, we have increased our enrolment. Last year there were no boys sleeping here, only girls. Our new (dorm) tutor is now fully occupied, and we still have more students to come,' said Mr Tavbuipeli, adding that the school is planning to build another module to accommodate 100 boys.

The completion of the new boy's dormitory was a collaborative effort between the Principal, the School Council Association, teachers, students and the surrounding community. The 2020 School Improvement Program identified the boy's dormitory as an urgent need following the devastation of TC Harold.

The biggest challenge in responding to the COVID-19 enforced school closures was to continue teaching students through a home-schooling package. Ebenezer's teachers responded quickly in preparing the materials but delivering them was problematic. Villagers prevented students and parents from meeting teachers to discuss the home-schooling arrangements, concerned they would become infected and pass the disease on to others. Fear of infection brought local transport to a standstill, cutting off entire communities from the school and Luganville. Rolling out a home-schooling package was further delayed for 2 weeks when the school's only photocopier broke down. A replacement was shipped at some cost from Port Vila. In addition, it was hard to reach the students. Some live 2 and a half hours' walking distance away, and phone coverage is inconsistent.

As a result, by midway through 2022, more than half of the students were behind in their studies and doing extra work in terms 2 and 3 to catch up. Teachers have assisted by cancelling some of the

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

students' less important extra-curricular activities and working additional hours to assist and encourage students to be academically ready for their exams later in the year.

Ms Evelyne Willie, an English teacher at Ebenezer, said teachers and students had to find creative solutions for dealing with their new circumstances.

'It was very difficult adapting to the new system because we used to have lots of students in each classroom. To apply the social distancing, we had to come up with different ways to teach. One solution was to split the classes, teaching half of the students one day and the second half the following day,' Ms Willie said.

The school community was happy with the additional grants received and the approval process. Although, some community members said it would be more beneficial if future grants were awarded earlier in the school year, before the cyclone season, to better integrate with yearly planning.

'The dormitory funded by VASCG is of tremendous benefit to our school, along with the other assistance. I think everyone in Santo thanks the Australian Government and the Australian people for helping us in our time of need,' said Principal Tavuipeli.

Hog Harbour Secondary School

Hog Harbour Secondary School is located 2 kilometres from Hog Harbour on the east coast of Santo Island. The school enrols 267 students in Years 7-12, including 140 boarding students.

Fortunately for the people of Hog Harbour, TC Harold landed with less force than in other parts of the country. Nevertheless, with the school community already facing considerable stress dealing with COVID-19, the cyclone exacerbated the struggle the school and the broader community faced.

The arrival in 2021 of VUV6.8 million in secondary tuition support helped the school overcome many of its challenges. The school used the Australian-funded, MoET-managed support to subsidise student tuition fees and cover medical bills, purchase textbooks, stationery, computers, a photocopier, and general teaching and student learning resources. It also funded field trips and paid for new tables, chairs and benches.

Other essential items included minor maintenance in the dormitory, repairs to staff accommodation, food, drink and student activities such as sports and excursions. This proved to be a huge boost for the school community in 2021, allowing it to continue delivering quality education amid a financial crisis fuelled by the pandemic and border closures.

The VASCG support also freed up the school's annual Vanuatu Government funding for school fees, allowing it to build a new dining hall. The dining hall filled an urgent need for an eating and gathering area for day students and boarders.

School Council Chairperson, Mr Joel Path, was delighted with the grant. 'Hog Harbour School went through some tough times during the COVID-19 crisis. The support from the Ministry and Australia has really boosted morale. We now have funds for things like books and equipment. Really pleasing is that classes are getting back to normal and students, teachers and families are feeling better,' said Mr Path.

Mr Jack Kaberi, Hog Harbour's science teacher and Deputy Principal, said he was pleased with the set-up of a new science lab and a dedicated computer room with 20 new computers.

'As a rural school where few families at home can afford a computer, this has made a huge difference in the ability of my students to research and learn and educate themselves,' said Mr Kaberi.

13-year-old student, Linda Loss, shared Mr Kaberi's sentiment. 'Getting to use a computer is great. We are learning so much and the computers help us get ready for our exams,' Ms Loss said.

Funds were also invested in local communities to help the school recover and rebuild wherever possible. For example, the classrooms' chairs, benches and tables and the library and computer room were constructed on-site using locally sourced materials. Similarly, local contractors using local materials built the new dining hall.

Despite the school's best efforts in 2021 to fulfil its academic goals, its closure for 3 months in early 2022 once again impacted the school's learning outcomes. Hog Harbour students were hit especially hard. As it is a rural school, many students are boarders from distant villages scattered along the coast. Several villages closed road access to prevent transmission of the COVID-19 virus. The school made a valiant effort to provide home schooling packages, although the results were not optimal.

According to Mr Kaberi, 'students who were determined and willing to learn did okay. But the (students) that needed assistance from teachers, slowly lost interest in learning.'

When school resumed in late May 2022, strict COVID protocols were introduced. The teaching staff again found themselves struggling to ensure continuity in their classes. Teachers who travelled to and from town had to isolate themselves for 3 days before re-joining the school community. Meanwhile, students had to social distance in class, which meant physically conducting lessons was more complicated and cumbersome, making class time much longer.

Mr Kaberi said, 'Now, in the second term, we have all had to work twice as hard to catch up. COVID-19 really affected the scheme of our work. Some teachers even used one week of their school break to continue teaching so students could catch up.'

The school council and the staff noted that while they were extremely grateful for the additional support from Australia and MoET, they hoped that the next rollout of funding would have its grant criteria better explained.

Kamewa Centre Primary School

Kamewa Centre Primary School is located in Luganville. The bilingual French-English school teaches almost 1,100 students, with class sizes averaging 35 students from kindergarten to year 8. Fifty teachers and several support staff work at the school.

TC Harold unleashed havoc on the school, damaging 80% of its buildings. Many were left unusable, and much of the school's facilities and support infrastructure needed significant repair.

The arrival in 2021 of VUV4.612 million in VASCG support helped the school overcome many of its challenges. The grant assisted with repairing and replacing the roofs for 9 classrooms and funded the renovation of the near-destroyed, campus-based house for the School Principal. Principal Gideon ensured the recovery work was conducted by local contractors using local or Santo-sourced materials and tradespeople.

The 9 renovated classrooms provided additional learning space for 315 students and dramatically improved school teaching conditions. This significantly enhanced Kamewa Centre Primary School's capacity to serve the community.

According to School Council Chairperson Mark Bethel, the new classrooms played an important role in helping the school and its supporters recover from the physical damage and emotional shock they endured during a catastrophic 2020-21.

'First, we had the pandemic, then Cyclone Harold, which almost entirely wiped out the school, and then months of rain due to the La Nina weather conditions in 2021. The school's educational and community roles were severely affected. We had not just 2 but 3 hits, all on top of each other. The kids, parents and teachers really felt it,' said Mr Bethel.

According to Mr Bethel, many parents complained that their children wanted to attend school following the cyclone, but the lack of space in the classrooms discouraged them. It was not only parents who

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

were complaining. Teachers joined with students to protest being forced to do lessons in tents that were hot, humid, muddy and unconducive to learning.

From Mr Bethel's perspective, the collaboration between the Australian Government and MoET in delivering the VASCG support and additional grants turned a negative into a positive.

Renovating the principal's house was also important for the broader school community. Once restored, Principal Gideon could return to the school campus with his family, spend more time coordinating and managing his staff, and spend less time travelling to work.

Principal Gideon coordinated with the School Council and teachers in planning how to invest the funds from the additional grants. Mr Bethel said he was satisfied with how the Principal oversaw the process.

The renovation of the 9 classrooms and the Principal's house, the repairs to taps and washing facilities, the uncertainty, the hardship, and the school's COVID-19 enforced closure affected the school's emotional environment.

Mr Toa, a teacher at Kamewa, said the situation put a lot of stress on everyone, particularly the need to keep teaching the students during the school's lockdown. According to Mr Toa, the home school packages were inadequate. Teachers found it difficult to communicate with the students as many parents could not afford internet access. And those who could afford it had to deal with slow and unreliable phone networks The different educational backgrounds of the parents also meant some students fared better than others in completing their home school packages.

'We are playing catch-up now with all our academic programs. And although we are satisfied with what the Australian government has done for our school, there are still many more things to do, with lots of buildings, windows and doors needing repair, more student desks and chairs required for the students, and gutters and water tanks that have to be reconnected or replaced,' said Mr Toa.

According to Principal Gideon, the school first heard about the grant funding through the finance officer of the Sanma Education office and via MoET emails. The email helped clarify some of the grant's requirements, which he then passed on to the school council.

Lycée de Luganville

Lycée de Luganville is one of Santo Island's largest French-speaking secondary schools. Lycée de Luganville currently caters to around 660 students in Years 9-14 and employs 48 teachers.

Following the COVID-19 enforced border closures and TC Harold's direct hit on the school, the Lycée's staff and students were advised to move to Matevulu College on Santo Island's east coast. Nearly every school building suffered damage in some way. Almost every computer was destroyed. The girl's dormitory was unliveable. Despite these hardships, the Lycée community decided it was staying in Luganville.

The arrival in 2021 of VUV 15.274 million in secondary fee relief support helped the school confront its many challenges. The support also subsidised student tuition, boarding and exam fees throughout 2021. This proved important for the Lycée and the local economy. Without the support from Australia through the MoET, many parents would not have been able to afford to send their children to school – families' families' incomes were severely affected by the impact of COVID-19 and TC Harold on Santo's tourism sector. The support enabled the Lycée to retain its students and teachers and continue classes. It also meant the annual funding from the Vanuatu Government could be reallocated to supplement the school community's other emergency response measures.

The community also renovated a maintenance shed, transforming it into a girls' dormitory, and renovated the school library to create a new computer lab and install 70 new computers. It brought a photocopier for the administration office and purchased 100 student chairs. The Lycée also provided free textbooks for many of its students for the 2021 school year. These subsidised activities helped

put the school back on track, as evidenced by the Lycée's rapidly increasing enrolment rate – 100 students a year since early 2020.

According to Lycée Principal Barthelemy Ngwele, many school parents were aware of the funding from Australia and MoET.

'Back in 2021, parents said they heard about Australia's support and were happy. They said without the support, maybe their kids would not have been able to go to school,' said Principal Barthelemy Ngwele.

'I replied that since Australia and the Ministry are helping with your kids' school fees, perhaps they could return the favour by helping us with maintenance and rebuilding or whatever. Many parents came to the school to assist us.'

A key strategy in surviving TC Harold's damage was ensuring recovery work benefited the school and the surrounding community. Alongside parents and school maintenance staff, local contractors and tradespersons used local materials and resources to repair and restore damaged buildings and facilities. Wherever possible, purchases were from local businesses.

Principal Ngewele's daughter and year 10 student, Lindane, said she and her friends were extremely happy when life at the Lycée began resuming its usual routine.

'It was very good for us students to have normal classrooms again. For some time, we did our lessons in tents and it was very hot. We could not concentrate, and when it rained, it got wet and muddy,' said Ms Ngwele.

But just as the Lycée was returning to some semblance of normality, Vanuatu experienced its first COVID-19 infection in March 2022, throwing schools into lockdown for 3 months.

Mr Ngwele said his school responded by upgrading its internet capacity at a significant cost and implementing online home school packages and lessons that teachers emailed to students. But the program was only partially successful. Students complained they didn't have enough money to buy internet data packages at home or lacked good internet coverage, and parents did not enforce the completion of the home school lessons.

'When I stayed at home, I tried to work using Gmail, but I found it hard. I don't know how to use the internet well or how to follow the lessons and learn them. So, I really wanted to go back to school so the teacher could explain things to me better,' said Ms Ngewele.

Ensuring transparency in how the additional funds were used was an important consideration for the school community. According to Principal Ngwele, the community was kept informed by posting notices detailing the grant in the administration office and on student notice boards. He also convened a school administration meeting and a general meeting with staff and teachers before discussing the projects to be funded with the school council. Principal Ngwele indicated that the school grant process worked well with the Lycée's policies and allowed the school to decide how to spend the money.

Natawa Centre Primary School

Natawa Centre Primary School sits on the east coast of Santo Island. With its large rural-based campus, Natawa Centre Primary School plays a vital role for over 11 east coast communities by acting as a centre for 14 separate feeder schools. It currently enrols 364 students in kindergarten and Years 1-8. The school employs 13 teachers.

Many parents lost their jobs in nearby tourism and agricultural export operations due to COVID-19. This impacted the school immediately, threatening the employment of the school's 4 community-supported teachers and a halt to urgently needed repairs to accommodation facilities for a community-supported emergency teacher transfer program.

Vanuatu Education Support Program Phase 2 Assessing the impact of COVID-19 on education in Vanuatu | May 2023

The arrival of VUV1.1 million in VASCG support helped the school overcome many of its challenges. The support assisted with repairing a teacher's house on campus, setting up 10 hand washing stations, and improving existing sanitation facilities, such as installing six 250-litre water tanks. The funding also covered wages for community-supported teachers, subsidised students' learning materials and helped reduce school fees for hard-hit families. Importantly, by working together, the Governments of Australia and Vanuatu ensured Natawa Centre Primary School could continue its teaching program while meeting the strict COVID-19 protocols introduced to the school during 2021-22.

Acting Principal for Natawa Centre Primary School, Ms Rebina Pakeo, saw first-hand how heavily COVID-19 and TC Harold hit the school and its community.

'Because of the country's border closure and general lockdown, half of our population lost their jobs. They were really facing difficulties and were limited in how they could help the school. Australia and the Ministry's support helped the school in lots of ways to deal with the COVID-19 threat,' said Ms Rebina Pakeo.

Unlike urban schools in Luganville, Natawa Centre Primary School's rural location meant it avoided the brunt of TC Harold in 2020, with damage limited to one classroom and some teacher housing facilities. Using locally sourced materials, carpenters from a nearby village worked alongside school maintenance staff to carry out general repairs and convert an old building into accommodation for a newly appointed teacher.

With the country facing the threat of the pandemic, the school needed to follow the government's strict COVID-19 protocols. They were able to achieve this with the installation of six 250-litre water tanks and 10 hand washing stations, the upgrading of sanitation facilities and the purchase of mops, hand sanitisers, soap and taps. This reduced the chance of COVID-19 spreading at the school and improved the students' general health and hygiene. With around half the school boarding on campus, the school's hygiene program had a ripple effect, with students going home on weekends and holidays and championing better health and hygiene.

According to the school's chairperson of the Wash and Sanitation Committee and a parent of 5 children at the school, Mr Milton Molisa, 'When we practice hand washing at the school, it starts to reduce things like diarrhoea, skin infections and stomach ache. What's good is that the students take this information home. Now many villages have hand washing stations.'

The school first knew of the Australian grant program via an email from the Santo Education Office, followed by an on-site visit from a MoET official. Principal, Ms Rebina Pakeo, downloaded posters from the MoET website and distributed them to stakeholders, eventually convening a meeting with the school council to decide how best to benefit the school with the new funds.

Ms Matlyne Lokai, Chairperson of the School Council, said she was happy with how the grant money was allocated and praised the principal's efforts to consult with teachers and the community.

Ms Lokai also noted the hard work of the teachers to implement home schooling during Natawa's school closure between March and May 2022. She acknowledged the program was only moderately successful but felt this was not the teachers' fault. The effectiveness of home schooling can be impacted by a parent's lack of teaching experience or the villagers' general educational background. Teachers also found communicating with students in remote villages very challenging. To address this, they rolled out several awareness campaigns within the school and through outreach programs in the villages. These had some success but were hampered by transport and logistical issues.

According to Ms Lokai, 'When the students came back to school, some of them were behind in their schooling. Now our teachers must work hard to try and make them catch up. Some (teachers) even come back over the break to work with their students.'

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

St. Therese Primary School

St. Therese Primary School is located in Luganville, Vanuatu's second-largest city and a popular tourist destination on Santo Island. With 700 students on campus between kindergarten and Year 8, St. Therese is one of the largest French-speaking primary schools in Santo. The school employs 40 teachers and several support and administration staff.

When TC Harold hit in April 2020, St. Therese was already facing a mounting crisis. Following the closure of Vanuatu borders in 2020, many parents in the Santo tourism industry lost their jobs, putting pressure on St. Therese by making it harder for many parents to pay for their children's school supplies and other educational costs. TC Harold's destructive arrival was – metaphorically and literally – the breaking point.

MoET alerted St. Therese of the VASCG support via an email and sent an MoET official to discuss the new funding arrangements. Information bulletins were posted in the school administration office that informed parents and teachers about the Australian grant.

The arrival of VUV2.2 million in 2021 through the additional grants helped St Therese to invest in repairing damaged infrastructure, replacing lost roofs, installing hand washing stations, purchasing 120 student chairs and 40 desks and constructing a 200-metre border fence.

With buildings severely damaged and roofs torn from classrooms, students and teachers had to sit through lessons on the ground in hot and clammy tents. The additional grants freed up other funding to allow the school to renovate an old youth centre building and transform it into an additional classroom.

A Luganville construction company erected the VUV400,000 fence using locally sourced materials. School maintenance staff assisted the company, bringing down the construction cost.

According to St. Therese School Principal Rex Takataveti, the school needed to improve its security. 'Last year, the school site was open, there were no fences around the border, and so we decided to use the grant to close the space here. It's around 200m of fencing, so this has helped us to ensure better safety and security for the school's students and staff,' said Principal Rex Takataveti.

The investment in chairs and desks has been a blessing for teachers and students. Each student has a desk, and lessons are no longer taught in spaces outside the classroom. The total cost of the furniture and shipping came to VUV800,000.

Constructing and installing hand washing stations were critical to reducing the risk of COVID-19 entering the school and the community.

'The hand washing stations were a priority during the pandemic. They helped the children stay healthy and helped prevent the spread of COVID-19 within the school,' said Principal Takataveti.

The VASCG-supported projects were chosen as part of St. There's yearly School Improvement Plan, with the VASCG budget managed by the School Council and discussed with the School Community Association. Parents and teachers could decide how and where the Australian and MoET support was allocated.

School Council Chairperson, Mr James Olivier, said he was impressed with how the principal and the school community worked together to pinpoint school needs and define projects that would best benefit St Therese and its students.

Said Mr Olivier, 'I think the St Therese community, MoET and the Australian Government can all feel confident the decisions on spending the funding were made fairly with all the right people having a say.'

'In 2021, thanks in part to the Australian grant and Vanuatu Government subsidies, we managed to send all our kids to school. But then, in 2022, the school was closed for 3 months due to the

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

lockdown. We tried hard when we received the home-schooling package to compensate for the missed schooling and keep parents and students updated, but it was a struggle. Our students still fell behind,' said Mr Olivier.

Principal Takataveti said St Therese tried to deliver home schooling via the internet using online teaching resources and giving parents mobile phone credit so they could call teachers and discuss their children's new learning arrangements. Teachers also made themselves available 3 days a week at school to help families. However, travelling was problematic for many due to COVID-19 restrictions and community anxiety about getting infected. Once school resumed, students had to work hard to catch up on their missed lessons. This exacerbated the student and teachers already stressed working atmosphere.

Annex 5 – Detailed Regression Analysis

This Annexe contains detail on the exact econometric specification used in the model, the descriptive statistics of the data used, and the detailed findings.

Econometric specification

The econometric specification used is presented in equation (1) in Annexe 5.

$$\begin{split} & \textit{Mark Ratio}_{i} = \beta_{0} + \delta_{1} \ 2021_{i} * \textit{TCH Zone}_{i} + \delta_{2} \ 2021_{i} + \delta_{3} \ \textit{TCH Zone}_{i} + \beta_{1} \ \textit{Gender}_{i} + \\ & \beta_{2} \textit{Age}_{i} + \beta_{3} \ 6^{th} \ \textit{Grade}_{i} + \beta_{4} \ 8^{th} \ \textit{Grade}_{i} + \beta_{5} \textit{Enrollement}_{i} + \\ & \beta_{6} \ \textit{English Lang}_{i} + \beta_{7} \ \textit{Stdt Teacher Ratio}_{i} + \sum_{k=1}^{n} \gamma_{k} \ \textit{School Finance}_{ki} + \\ & \beta_{8} \ \textit{Rural}_{i} + \sum_{k=1}^{6} \varphi_{k} \ \textit{Province}_{ki} + e_{i} \end{split}$$

where:

Mark Ratio_i is the ratio of the mark obtained by the student *i* in the VANSTA test in relation to the minimum standard mark for the specific exam and year.³⁵ For example, a *Mark Ratio* of 1.1 means that student *i* obtained a mark 10% above the minimum standard mark. The minimum standard mark changes depending on the type of exam and the year of the exam. This normalisation with respect to the minimum standard mark is necessary for interpreting results consistently for all exams for all years.

 2021_i is a dichotomic variable that takes the value of one for all those observations corresponding to Year 2021. For previous years the variable 2021_i has a value of zero. δ_2 is the major parameter of interest, which is designed to understand the impact of COVID-19/other 2021 impacts.

*TCH Zone*_i is a dummy variable that identifies all those schools located in a radius of 50 kilometres of the trajectory followed by TC Harold. δ_1 is the parameter of interest. It corresponds to the differencein-difference parameter identifying the effect of TC Harold on academic performance for those schools within the range in 2021.

A set of individual characteristics are included in the model: student gender and age and student year. Year 4 is not included, so it is the reference group for Years 6 and 8.

Concerning school characteristics, the model incorporates the number of students enrolled in each school, a variable identifying the language used to teach in the school (English language is equal to one and French language is equal to zero) and the student-teacher ratio.

The model also includes a set of school finance variables. Depending on the specification, these variables can change. In the preferred specification (section (a) in the regression tables), total income per capita and total expenditure per capita by source are included. The alternative approach is to use a set of dichotomic variables that identify if a school increased its expenditure by 50% or more from

³⁵ The Vanuatu National Literacy and Numeracy Minimum Standards for Years 4 and 6 were set by MOET. Standards are clear, measurable statements about a specific element of student performance. (Source: Vanuatu Standardised Tests of Achievement (VANSTA), 2021 Report.

Vanuatu Education Support Program Phase 2 Assessing the impact of COVID-19 on education in Vanuatu | May 2023

2020 to 2021 (section (b)). In this case, the model uses interaction terms between the identifying variable for Year 2021 and the following expense categories:

- Admin Expenditure.
- Development Expenditure.
- Education Supplies Expenditure.
- Operation & Maintenance Expenditure.

To control for regional and local differences across Vanuatu, the study includes an identifying variable for schools in rural areas and a set of variables signalling the province where the schools are located. In this case, Tafea Province is the reference group.

In Annexe 6, the estimates for the same econometric model described in Equation 1 are reported, but instead of province, the model uses a set of dichotomic variables for each island in Vanuatu (see Table A-1 in the Annexe 6 for the results of this specification). Tanna island is the reference group for this set of dummy variables.

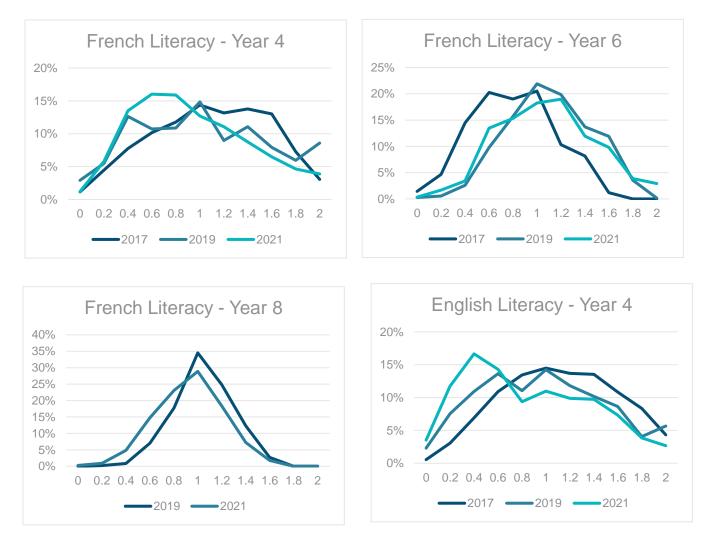
Finally, e_i corresponds to the error term.

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

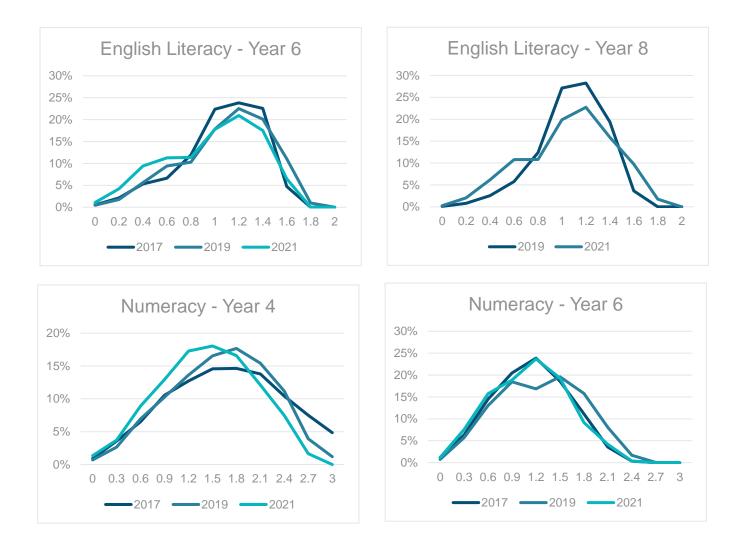
Distribution of MarkRatio by subject

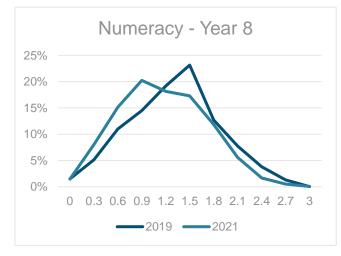
The below charts plot the distribution of the *MarkRatios* for each subject. When analysing the graphs it is important to note that the scales of the axes changes for each graph.

- For numeracy the x-axis is between 0-3, and for literacy it is between 0-2. This is because there are many more students who score more than double the minimum ratio in numeracy
- The y-axis changes for each graph depending on the specific distribution



Assessing the impact of COVID-19 on education in Vanuatu | May 2023





Descriptive Statistics by year and TC Harold affected area

	Schoo	ls in the T(ar		affected	Schools	out of TC H	larold affe	ected area
	mean	Std. Dev.	min	max	mean	Std. Dev.	min	max
2019								
Mark Ratio	1.435	0.574	0.000	3.308	1.315	0.560	0.000	3.571
Gender (women)	0.493	0.500	0.000	1.000	0.493	0.500	0.000	1.000
Age	12.561	2.094	4.000	26.000	12.465	2.173	3.000	28.000
Year 4	0.448	0.497	0.000	1.000	0.428	0.495	0.000	1.000
Year 6	0.340	0.474	0.000	1.000	0.348	0.476	0.000	1.000
Year 8	0.212	0.409	0.000	1.000	0.224	0.417	0.000	1.000
Enrolment	256.530	216.526	13.000	899.000	264.143	213.745	13.000	984.000
English Language	0.667	0.471	0.000	1.000	0.707	0.455	0.000	1.000
Student-Teacher Ratio	32.230	13.435	4.182	128.000	33.169	13.489	7.154	159.000
Total Income per student (1,000∨t)	30.503	82.110	0.355	1244.568	28.337	27.136	0.032	145.894
Expenditure per student (1,000vt)								
Total	24.759	21.274	2.025	137.571	27.615	25.548	0.024	125.590
Admin	6.395	7.622	0.000	80.526	8.107	7.727	0.000	66.369
Boarding	1.754	4.701	0.000	31.634	1.773	4.876	0.000	38.248
Development	3.917	5.224	0.000	30.349	2.628	4.102	0.000	32.372
Education Supplies	2.618	2.021	0.000	11.548	3.809	3.743	0.000	19.241
Operation/Maint	2.983	4.320	0.000	33.426	3.466	4.713	0.000	29.838
Personnel	6.703	7.683	0.000	73.594	7.466	10.325	0.000	70.781
Suspense Account	0.516	1.007	0.000	7.788	0.304	1.004	0.000	8.070
Rural	0.792	0.406	0.000	1.000	0.771	0.420	0.000	1.000
Province								
Malampa	0.205	0.404	0.000	1.000	0.131	0.337	0.000	1.000
Penama	0.220	0.414	0.000	1.000	0.039	0.193	0.000	1.000
Sanma	0.575	0.494	0.000	1.000	0.046	0.210	0.000	1.000
Shefa	0.000	0.000	0.000	0.000	0.457	0.498	0.000	1.000
Tafea	0.000	0.000	0.000	0.000	0.265	0.441	0.000	1.000
Torba	0.000	0.000	0.000	0.000	0.062	0.242	0.000	1.000

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	Schoo	ls in the T(ar	C Harold ea	affected	Schools	out of TC F	larold aff	ected area
	mean	Std. Dev.	min	max	mean	Std. Dev.	min	max
2021								
Mark Ratio	1.287	0.534	0.000	2.941	1.207	0.538	0.000	3.063
Gender	0.495	0.500	0.000	1.000	0.492	0.500	0.000	1.000
Age	12.199	2.190	3.000	27.000	12.293	2.224	4.000	23.000
Year 4	0.482	0.500	0.000	1.000	0.419	0.493	0.000	1.000
Year 6	0.321	0.467	0.000	1.000	0.337	0.473	0.000	1.000
Year 8	0.196	0.397	0.000	1.000	0.244	0.429	0.000	1.000
Enrolment	267.474	223.326	20.000	963.000	267.612	212.582	17.000	1001.000
English Language	0.662	0.473	0.000	1.000	0.731	0.443	0.000	1.000
Student-Teacher Ratio	28.291	9.000	3.300	102.000	30.037	10.980	8.250	74.000
Total Income per student (1,000vt)	46.201	144.768	0.393	1481.093	33.424	29.640	0.007	163.234
Expenditure per student (1,000vt)								
Total	27.822	26.294	0.210	228.281	28.822	26.595	0.254	173.442
Admin	7.722	7.895	0.023	64.733	9.249	9.424	0.002	71.393
Boarding	2.292	5.912	0.000	31.133	2.099	5.446	0.000	36.916
Development	4.307	6.800	0.000	69.808	3.932	6.592	0.000	76.774
Education Supplies	2.941	2.343	0.000	15.476	3.557	3.235	0.000	18.856
Operation/Maint	4.206	4.050	0.000	39.371	3.693	4.202	0.000	19.781
Personnel	6.174	8.192	0.000	82.179	6.452	7.313	0.000	62.769
Suspense Account	0.279	0.762	0.000	10.408	0.250	1.227	0.000	12.170
Rural	0.787	0.409	0.000	1.000	0.770	0.421	0.000	1.000
Province								
Malampa	0.200	0.400	0.000	1.000	0.134	0.340	0.000	1.000
Penama	0.242	0.428	0.000	1.000	0.048	0.213	0.000	1.000
Sanma	0.558	0.497	0.000	1.000	0.048	0.214	0.000	1.000
Shefa	0.000	0.000	0.000	0.000	0.464	0.499	0.000	1.000
Tafea	0.000	0.000	0.000	0.000	0.250	0.433	0.000	1.000
Torba	0.000	0.000	0.000	0.000	0.057	0.232	0.000	1.000

Pooled OLS Model on the Determinants of Student's Academic Performance

Results are presented for two specifications. The preferred specification presents expenditure per student for each expenditure line source. To explore the impact of big variations in expenditure, the second specification includes some dummy variables for schools reporting an increase of 50% or more in Admin, Development, Education Supplies and Operation and Maintenance from 2020 to 2021. This attempts to capture VASCG's impact.

Main regression

	(a)			(b)	
	Test			Test	
VARIABLES	Literacy/ Alphabétisation	Numeracy	VARIABLES	Literacy/ Alphabétisation	Numeracy
	-0.0933***	-0.1297***		-0.1126***	-0.1517***
Year 2021 (post-covid)	(0.00674)	(0.00876)	Year 2021 (post-covid)	(0.00915)	(0.01170)
701111	0.0702***	0.1440***		0.0850***	0.1628***
TCH Harold Zone	(0.01041)	(0.01364)	TCH Harold Zone	(0.01059)	(0.01375)
Year 2021*TCH Harold	-0.0364***	-0.0666***	— Year 2021*TCH Harold	-0.0296***	-0.0575***
Zone	(0.01056)	(0.01378)	Zone	(0.01080)	(0.01404)
	0.1635***	0.1202***	— — .	0.1659***	0.1233***
Gender - women	(0.00515)	(0.00663)	Gender - women	(0.00525)	(0.00674)
	-0.0356***	-0.0405***		-0.0360***	-0.0403***
Age	(0.00201)	(0.00264)	Age	(0.00204)	(0.00267)
6 Year	0.2092***	-0.2227***	6 Year	0.2098***	-0.2230***
	(0.00716)	(0.00934)		(0.00723)	(0.00942)
	0.2005***	-0.1768***	_	0.1961***	-0.1850***
8 Year	(0.01203)	(0.01712)	8 Year	(0.01218)	(0.01742)
	0.0001***	-0.0001***		0.0001***	-0.0001**
Enrolment	(0.00002)	(0.00003)	Enrolment	(0.00002)	(0.00003)
	-0.0560***	0.0271***	_	-0.0648***	0.0215***
English language school	(0.00575)	(0.00707)	English language school	(0.00586)	(0.00720)
	0.0003	0.0024***		0.0001	0.0020***
Student-Teacher Ratio	(0.00024)	(0.00033)	Student-Teacher Ratio	(0.00024)	(0.00034)
Total school income	0.0001***	-0.0000	— Total School' Income	0.0001	-0.0002**
(VUV 1000 per student)	(0.00003)	(0.00005)	(per student, 1000 vt)	(0.00006)	(0.00009)
Expenditure per student (1000vt)			Total School' Expenditure	0.0020***	0.0026***
Admin	0.0019***	0.0043***	(per student, 1000 vt)	(0.00023)	(0.00029)

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	Tes	it		Tes	t
	(0.00065)	(0.00083)	Variation>50% (2020 to 2021)		-
	-0.0062***	-0.0067***		-0.0340***	-0.0402**
Boarding	(0.00105)	(0.00152)	Admin*Year 2021	(0.00774)	(0.00953)
	0.0005	0.0003		0.0071	0.0124
Development	(0.00067)	(0.00088)	Development*Year 2021	(0.00739)	(0.00912
	0.0075***	0.0121***	Education Supplies*Year	-0.0342***	-0.0217*
Education Supplies	(0.00133)	(0.00184)	2021	(0.00766)	(0.00935
	0.0031***	0.0020		0.0556***	0.0447***
Operation/Maint	(0.00101)	(0.00136)	Operation/Maint.*Year 2021	(0.00735)	(0.00904)
	0.0017***	0.0015**			
Personnel	(0.00048)	(0.00064)			
	0.0279***	0.0361***			
Suspense Account	(0.00271)	(0.00384)			
. .	-0.1083***	-0.1168***	- -	-0.1253***	-0.1413*
Rural	(0.01113)	(0.01361)	Rural	(0.01134)	(0.01384
Province			Province		
M - I	0.0818***	0.0552***	— Malana —	0.0827***	0.0559**
Malampa	(0.00979)	(0.01310)	Malampa	(0.00975)	(0.01301
D	0.2267***	0.2001***	- D	0.2221***	0.1965**
Penama	(0.01196)	(0.01505)	Penama	(0.01197)	(0.01506
0	0.0923***	0.0927***	- 0	0.0813***	0.0800**
Sanma	(0.01126)	(0.01444)	Sanma	(0.01143)	(0.01458
01	0.1343***	0.0487***		0.1605***	0.0882***
Shefa	(0.01013)	(0.01295)	Shefa	(0.00988)	(0.01258
	-0.0737***	-0.1688***		-0.0504***	-0.1274*
Torba	(0.01782)	(0.02299)	Torba	(0.01756)	(0.02274
• · · ·	1.2800***	1.9234***	- • • • • -	1.3193***	1.9774**
Constant	(0.02893)	(0.03740)	Constant	(0.02945)	(0.03798
Observations	25,662	25,675	Observations	24,985	25,012
R-squared	0.183	0.168	R-squared	0.182	0.169
Robust standard errors in pare	entheses				

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Alternative Regression analysis

The below analysis uses the same model as outlined in the report above, except instead of using provinces it includes a set of variables for islands to control for the effects at the local level. The baseline island is Tanna.

Appnadetisation Appnadetisation Year 2021 (post-covid) -0.0352*** 0.1352*** 0.1572** Year 2021 (post-covid) 0.0637*** 0.1414*** (0.0071) 0.0577** TCH Harold Zone 0.0637*** 0.0414*** (0.0114) (0.0143) (0.0143) Year 2021*TCH Harold Zone -0.0352*** 0.0629*** (0.0177) (0.0178) (0.0139) Gender - women 0.1636*** 0.1207*** (0.0071** (0.0072) (0.0065) Age (0.00204) (0.0026) (0.00270) (0.00270) (0.00270) 6 th Grade 0.214*** -0.2116*** 6 th Grade 0.2139*** -0.4037*** (0.00211) (0.00720) (0.00003) (0.00270) (0.00270) (0.00270) 6 th Grade 0.214*** -0.2116*** 6 th Grade 0.2139*** -0.2139*** -0.2139*** -0.2017*** 10000712 (0.00272) (0.00073) (0.00027) (0.00027) (0.00027) (0.00027) (0.00027) (0.00000) (0.00027) (0.00027)	(a)			(b)		
Variable: Alphabétisation Numeravy Variable: Alphabétisation Numeravy Year 2021 (post-covid) -0.0954*** -0.1352*** -0.1352*** -0.152*** -0.0057* (0.00877) TCH Harold Zone -0.0637*** 0.1414*** (0.01142) (0.01142) (0.01142) Year 2021*TCH Harold Zone -0.0362*** -0.0625*** (0.01373) (0.01058) (0.01373) Gender - women 0.1636*** 0.1207*** (0.001372) (0.00204) (0.00206) Age -0.0372*** -0.0440*** -0.0302*** -0.0437*** (0.00207) (0.0027) Grin Grade 0.2134*** -0.2116*** 6** Grade 0.2139*** -0.2130*** Montified 0.0001*** -0.0001*** (0.0022) (0.0022) (0.0022) Brodinent -0.001*** -0.0001*** -0.0001*** -0.0001*** -0.0001*** Brodinent -0.0037*** -0.0001*** -0.0001*** -0.0001*** -0.0001*** Grin Grade 0.0017*** -0.0001*** -0.0001*** <th></th> <th>Test</th> <th></th> <th></th> <th>Test</th> <th></th>		Test			Test	
Year 2021 (post-covid) Interface Interface <thinterface< th=""> <thinterface< th=""> <thinterface< th=""></thinterface<></thinterface<></thinterface<>	VARIABLES		Numeracy	VARIABLES	•	Numeracy
(0.00674) (0.00877) (0.008377) (0.00830) (0.01182) TCH Harold Zone (0.01114) (0.01473) (0.01437) (0.01133) (0.01133) Year 2021*TCH Harold Zone -0.0362*** -0.0629*** (0.01373) (0.01078) (0.01399) Gender - women (0.00512) (0.00659) (0.00052) (0.00659) (0.000207) (0.00270) (0.00170) (0.00270) (0.00270)	Year 2021 (post-covid)	-0.0954***	-0.1352***	Year 2021 (post-covid)	-0.1125***	-0.1572***
ILH Harold Zone (0.01114) (0.01473) (0.01476) (0.01143) (0.01496) Year 2021*TCH Harold Zone -0.0362**** -0.0629**** (0.01373) (0.01496) Gender - women 0.1636*** 0.1207*** Gender - women 0.15658*** 0.03221 Age 0.00512 (0.00659) Gender - women (0.00522) (0.00669) Age 0.0372*** -0.040*** Age (0.00207) (0.00270) 6 th Grade 0.2134*** -0.160**** 8 th Grade 0.2139*** -0.2139*** 8 th Grade 0.01211 (0.01720) 6 th Grade 0.2139*** -0.2139*** 8 th Grade 0.01211 (0.01720) 6 th Grade 0.2039*** -0.0167*** 10.00021 (0.00003) 0.00007** 0.0001*** -0.0001*** 0.0001*** 10.00021 (0.000726) fich arguage school 0.0335*** 0.0373*** 10.00025 (0.000726) fich staben/ income 0.0001*** 0.0001*** 10.0001*** 0.0001*** 0.000	· · · · · · · · · · · · · · · · · · ·	(0.00674)	(0.00877)		(0.00930)	(0.01182)
(0.0114) (0.01473) (0.013473) (0.01393) Year 2021*TCH Harold Zone (0.01636*** 0.0629*** (0.01393) Gender - women (0.6165*** 0.1207*** (0.01373) (0.01393) Age (0.00512) (0.00052) (0.00207) (0.0027) (0.0027) Age (0.00718) (0.00936) (0.0027) (0.0027) (0.0027) 6th Grade 0.2134*** -0.1617*** (0.01728) (0.00728) (0.00728) 6th Grade 0.2134*** -0.1607*** (0.00728) (0.00728) (0.00728) 6th Grade 0.2134*** -0.1607*** (0.01728) (0.00728) (0.00728) 6th Grade 0.2134*** -0.001*** (0.00728) (0.00728) (0.00728) 8th Grade 0.001*** -0.001*** (0.00178) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.00078) (0.000	TCH Harold Zone	0.0637***	0.1414***	TCH Harold Zone	0.0777***	0.1597***
Year 2021*TCH Harold Zone (0.01054) (0.01373) (0.01373) Gender - women 0.1636*** 0.1207*** (0.00059) Gender - women 0.1658*** 0.1236*** Age -0.0372*** -0.0440*** (0.00266) (0.0027) (0.00652) (0.00672) 6 th Grade 0.2134*** -0.2116*** 6 th Grade 0.2139*** -0.2139*** -0.2139*** 8 th Grade 0.2134*** -0.1607*** (0.00725) (0.00725) (0.00743) 8 th Grade 0.2134*** -0.1607*** (0.01720) (0.00072) (0.00043) 8 th Grade 0.2134*** -0.1607*** (0.001225) (0.00175) (0.00043) 8 th Grade 0.001*** -0.00071** (0.00020) (0.00003) (0.00003) (0.00003) (0.00003) (0.00021) (0.00002) (0.00003) (0.00002) (0.00003) (0.00002) (0.00005) (0.00057) (0.0017** (0.00074) (0.00058) (0.00058) (0.00058) (0.00058) (0.00058) (0.00058) (0.00058) (0.00074)		(0.01114)	(0.01473)		(0.01143)	(0.01496)
Gender - women (0.01054) (0.01373) (0.01078) (0.01399) Gender - women 0.1536*** 0.1207*** (0.00512) (0.00512) (0.00562) (0.00562) (0.00562) (0.00562) (0.00562) (0.00669) Age -0.0216*** -0.0440*** (0.00207) (0.00270) (0.00270) (0.00270) (0.00270) (0.00725) (0.00725) (0.00725) (0.00725) (0.00725) (0.00748) (0.00275) (0.00725) (0.00725) (0.00725) (0.00725) (0.00725) (0.00725) (0.00748) (0.0027) (0.00725) (0.00748) (0.00725) (0.00748) (0.00725) (0.00748) (0.00725) (0.00725) (0.00725) (0.00725) (0.00725) (0.00725) (0.00726) (0.00021) (0.0003) (0.00726) (0.00031) (0.00031) (0.00031) (0.00031) (0.00031) (0.00031) (0.00031) (0.00032) (0.00032) (0.00032) (0.00032) (0.00032) (0.00032) (0.00032) (0.00032) (0.00032) (0.00032) (0.00031) (0.00032)	Year 2021*TCH Harold Zone	-0.0362***	-0.0629***	Year 2021*TCH Harold Zone	-0.0300***	-0.0534***
Gender - women (0.00512) (0.00552) (0.00552) (0.00552) (0.00522) (0.00569) Age -0.0373*** -0.0433*** -0.0433*** -0.0433*** -0.0433*** 6 th Grade 0.2134*** -0.2116*** 6 th Grade 0.2139*** -0.01678*** 8 th Grade 0.2134*** -0.1607**** 8 th Grade 0.0017*** (0.00725) (0.00740) 8 th Grade 0.001*** -0.0001**** -0.0001**** (0.0012) (0.00725) (0.00740) Enrollment 0.0001*** -0.0001**** (0.00726) B th Grade 0.001*** -0.0001*** Student-Teacher Ratio -0.0003 0.0022*** (0.00050) (0.00050) (0.00050) (0.000726) Student. 1000 vt) (0.00066) (0.000726) Student-Teacher Ratio -0.001*** -0.0001*** Geradi Language school 0.0017*** 0.002*** (0.00050) Total School' Income 0.0001 -0.002*** Gondi Stabel Language school 0.0017*** 0.002*** (0.00050) Total School' Income		(0.01054)	(0.01373)		(0.01078)	(0.01399)
Age 0.00512) 0.00659) Age 0.00072** 0.00372*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.00373*** 0.0037*** 0.0037*** 0.0037*** 0.0037*** 0.0017** 0.000725) 0.000943 8th Grade 0.2134*** 0.0017** 0.0001*** 0.0017*** 0.001*** 0.001*** 0.001*** 0.001*** 0.001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.000726) 0.000000 0.00001*** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072** 0.00072*** 0.00072*** 0.00072*** 0.00072*** 0.00072*** 0.00072**** 0.00001***** 0.0	Gender - women	0.1636***	0.1207***	Gender - women	0.1658***	0.1236***
Age (0.00204) (0.0026) Age (0.00270) (0.00270) 6 th Grade 0.2143*** -0.2116*** 6 th Grade 0.2139*** -0.2130*** 8 th Grade 0.2134*** -0.1607*** (0.00725) (0.00933) 8 th Grade 0.2134*** -0.1607*** (0.00725) (0.0093) 8 th Grade 0.001*** -0.0001*** (0.00025) (0.00726) Enrollment 0.0001*** -0.0011*** (0.00025) (0.000726) 60.005877 (0.00726) (0.00002) (0.0003) (0.000726) Student-Teacher Ratio -0.0051*** 0.0017*** (0.00002) (0.00003) foer student, 1000 vt) (0.00003) (0.00003) (0.00003) (0.00003) Expenditure per student (1000vt) 0.0017*** 0.0043*** Total School' Income 0.0017*** (0.00053) Boarding -0.0063*** -0.0065**** -0.0055*** 0.0017*** 0.0025*** -0.023*** (0.00072) (0.00072) (0.00072) (0.00072) (0.00072)		(0.00512)	(0.00659)	Conact women	(0.00522)	(0.00669)
- (0.00204) (0.0026) - (0.0027) (0.00270) 6 th Grade 0.2143 ^{***} -0.2116 ^{***} 6 th Grade 0.2139 ^{***} -0.2130 ^{***} 8 th Grade (0.00718) (0.00936) (0.00725) (0.00725) (0.00748) 8 th Grade (0.01211) (0.01725) (0.01750) (0.01750) (0.01725) Enrollment 0.0001 ^{***} -0.0001 ^{***} (0.00726) (0.0002) (0.0003) English language school -0.0453 ^{***} 0.0413 ^{***} -0.0001 ^{***} -0.0001 ^{***} -0.0001 ^{***} Student-Teacher Ratio -0.0005 (0.00025) (0.00025) (0.000726) (0.00025) (0.0003) Forstudent, 1000 vt) (0.00003) (0.00003) (0.00003) (0.00025) (0.00025) (0.00025) Fotal School' Income 0.001 ^{***} -0.005 ^{***} (0.00025) (0.00025) (0.00025) (0.00025) Fotal School' Income 0.001 ^{***} -0.005 ^{****} (0.00025) (0.00025) (0.00025) (0.00025) Boarding	Age	-0.0372***	-0.0440***	Δσe	-0.0373***	-0.0433***
B th Grade (0.00718) (0.00936) (0.00725) (0.00725) (0.00725) B th Grade 0.2134*** -0.1607*** (0.01211) (0.01720) Enrollment 0.0001*** -0.0001*** (0.00725) (0.00002) English language school -0.0453*** 0.0413*** (0.00725) (0.00002) Student-Teacher Ratio -0.003 0.0022*** (0.00025) (0.00005) Student-Teacher Ratio -0.001*** -0.0000 (0.00005) (0.00025) Total School' Income 0.0001*** -0.0000 (0.00025) (0.00005) Expenditure per student (1000vt) 0.0017*** 0.0003 (0.00025) (0.00031) Expenditure per student (1000vt) 0.0017*** -0.0005 Total School' Income 0.0017*** 0.0023*** Admin 0.0006 (0.00086) (D.00072) ((0.00204)	(0.00266)		(0.00207)	(0.00270)
B th Grade 0.2134*** -0.1607*** 8 th Grade 0.2089*** -0.01678*** B th Grade 0.0011*** -0.0001*** -0.0001*** (0.01225) (0.01750) Enrollment 0.0001*** -0.0001*** 0.0013*** 0.0013*** 0.001*** -0.0001*** English language school -0.0453*** 0.0413*** english language school -0.0535*** 0.0373*** Student-Teacher Ratio -0.0003 0.0022*** -0.0005 0.0007** -0.0005 0.0007** 0.0007** Student-Teacher Ratio -0.0003 0.0020*** 5tudent-Teacher Ratio -0.0005 0.0001*** -0.0000 0.0002*** 0.0002*** 0.0002*** 0.0002*** 0.0002*** 0.0002*** 0.0002*** 0.0002**** 0.0002**** 0.0002*** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002**** 0.0002***** 0.0002**** 0.000*	6 th Grade	0.2143***	-0.2116***	6 th Grade	0.2139***	-0.2130***
8 ^m Grade (0.01211) (0.01720) 8 ^m Grade (0.01225) (0.01750) Enrollment 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** English language school -0.0453*** 0.0413*** English language school 0.000720 (0.00720) (0.00720) 0.00074** 0.0033*** 0.0037*** 0.0037*** 0.00740) Student-Teacher Ratio -0.0003 0.0020*** English language school 0.0001*** 0.0007** 0.00072** 0.0007*** 0.0007*** 0.0007*** 0.0007*** 0.0007*** 0.0002*** 0.0002*** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0002**** 0.0002**** 0.0002**** 0.0000**** 0.0002**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000**** 0.0000***** 0.0000**** 0.0000****		(0.00718)	(0.00936)		(0.00725)	(0.00943)
(0.01211) (0.01720) (0.01225) (0.01750) Enrollment 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.0001*** 0.000720) (0.00020) (0.00020) (0.00020) (0.00020) (0.00020) (0.00020) (0.00020) (0.00020) (0.00020) (0.00020) (0.00020) (0.000720) 0.0001**** 0.0001**** 0	8 th Grade	0.2134***	-0.1607***	^{8th} Grade	0.2089***	-0.1678***
Enrolment (0.0002) (0.0003) (0.0003) (0.0003) English language school -0.0453*** 0.0413*** -0.0535*** 0.0373*** Student-Teacher Ratio -0.0003 0.0020*** (0.0003) -0.0005* 0.0017*** Student-Teacher Ratio 0.0001*** -0.0003 0.0020*** -0.0005* 0.0017*** Total School' Income 0.0001*** -0.0000 Total School' Income 0.0001 -0.0003 0.00009) (per student, 1000 vt) (0.0003) (0.0003) (per student, 1000 vt) 0.0017*** 0.0023*** Admin 0.0017** 0.0043*** (per student, 1000 vt) (per student, 1000 v	5 Glade	(0.01211)	(0.01720)		(0.01225)	(0.01750)
Image: 100002 (0.0003) (0.0002) (0.0003) English language school -0.0453*** 0.0413*** english language school -0.0535*** 0.0373*** Student-Teacher Ratio -0.0003 0.0020*** (0.0002) (0.0003) Total School' Income 0.0001*** -0.0003 (0.0002) (0.0003) Ip: student, 1000 vt) 0.0001*** -0.0000 Total School' Income 0.0001 *** 0.0002) (0.0003) Expenditure per student, 1000 vt) 0.0001*** -0.0003 (0.0003) (0.0003) Admin 0.0017** 0.0043*** (per student, 1000 vt) (0.0002) (0.0003) Boarding -0.0063*** -0.0065*** (per student, 1000 vt) (0.0024) (0.0031) Development 0.0017** 0.0043*** (per student, 1000 vt) (0.0072) (0.00978) Development 0.0006 -0.0001 -0.0024*** (0.0076) (0.00977) Education Supplies 0.0032*** 0.013*** -0.0028*** (0.00773) (0.00977) Operation/Maint </td <td>Enrollment</td> <td>0.0001***</td> <td>-0.0001***</td> <td>Enrollment</td> <td>0.0001***</td> <td>-0.0001***</td>	Enrollment	0.0001***	-0.0001***	Enrollment	0.0001***	-0.0001***
English language school (0.00587) (0.0726) (0.00600) (0.00600) (0.00740) Student-Teacher Ratio -0.0003 0.0020*** Student-Teacher Ratio -0.0005* 0.0017*** Total School' Income (0.00035) (0.00035) Total School' Income 0.0001*** -0.0000 (0.00025) <td>Linoiment</td> <td>(0.00002)</td> <td>(0.00003)</td> <td>Linoiment</td> <td>(0.00002)</td> <td>(0.00003)</td>	Linoiment	(0.00002)	(0.00003)	Linoiment	(0.00002)	(0.00003)
Student-Teacher Ratio (0.00587) (0.00726) (0.00726) (0.00706) (0.00740) Student-Teacher Ratio -0.0003 0.0020*** (0.00035) -0.0005* 0.0017*** Total School' Income 0.0001*** -0.0000 (0.00005) (0.00005) (0.00025) (0.00025) Expenditure per student, 1000 vt) (0.000726) (0.00005) (0.00005) (0.00006) (0.00007) Expenditure per student (1000vt) 0.0017** 0.0043*** (per student, 1000 vt) (0.00024) (0.00024) Admin 0.0017** 0.0043*** (per student, 1000 vt) (0.00024) (0.00031) Boarding -0.0063*** -0.0065**** Admin*Year 2021 -0.0294*** -0.0354*** (0.00072) (0.0009) Unitation>50% (2020 to 2021) Unitation>50% (2	English language school	-0.0453***	0.0413***	English language school	-0.0535***	0.0373***
Student-Teacher Ratio (0.00025) (0.00035) (0.00035) (0.00035) (0.00025) (0.00035) Total School' Income (per student, 1000 vt) 0.0001*** -0.0000 Total School' Income (per student, 1000 vt) 0.0001 -0.0002*** Admin 0.0017** 0.0043*** (per student, 1000 vt) (0.00024) (0.00031) Boarding 0.0017** 0.0043*** (per student, 1000 vt) (0.00024) (0.00031) Boarding -0.0063*** -0.0065**** (per student, 1000 vt) (0.00720) (0.00720) Boarding -0.0063*** -0.0065**** (0.00072) (0.00072) (0.0078) Development 0.0059*** 0.0013** -0.0025*** (0.00760) (0.00927) Education Supplies 0.0059*** 0.013*** -0.0028** -0.0247*** (0.0073) (0.00948) Operation/Maint 0.0016*** 0.0013*** -0.0028** (0.00751) (0.00926) Personnel 0.0016*** 0.0013*** 0.0339*** -0.0339*** (0.00751) (0.00926)		(0.00587)	(0.00726)	Light language school	(0.00600)	(0.00740)
(0.00025) (0.00035) (0.00025) (0.00035) Total School' Income (per student, 1000 vt) 0.0001*** -0.0000 (per student, 1000 vt) 0.0001 -0.0002*** Admin 0.0017*** 0.0043*** (per student, 1000 vt) 0.0017*** 0.0023*** Boarding 0.0016 (0.00086) Variation>50% (2020 to 2021) (0.000792) Boevelopment 0.0006 -0.00065*** Admin*Year 2021 -0.0294*** -0.0354*** 0.00072) (0.00090) -0.0065*** Admin*Year 2021 -0.0294*** -0.0354*** 0.00072) (0.00090) -0.0065*** Admin*Year 2021 0.0065 0.0064 0.00072) (0.0090) -0.0065*** -0.0393*** -0.0393*** -0.0247*** 0.0006 -0.0001 -0.0013*** -0.032*** 0.00257 -0.0393*** -0.0247*** 0.0016*** 0.0013*** 0.0013*** -0.0013*** -0.0013*** -0.0393*** -0.0247*** 0.0016*** 0.0016*** 0.0013*** -0.0015*** -0.0015*** -0.0557*** <td>Student-Teacher Patio</td> <td>-0.0003</td> <td>0.0020***</td> <td>Student-Teacher Patio</td> <td>-0.0005*</td> <td>0.0017***</td>	Student-Teacher Patio	-0.0003	0.0020***	Student-Teacher Patio	-0.0005*	0.0017***
(per student, 1000 vt) (0.00003) (0.00005) (per student, 1000 vt) (0.00006) (0.00009) Expenditure per student (1000vt) 0.0017** 0.0017*** 0.0023*** (per student, 1000 vt) (0.00024) (0.00031) Admin 0.0017** 0.0043*** (per student, 1000 vt) (0.00024) (0.00031) Boarding 0.0017** 0.0065*** (0.00055) Variation>50% (2020 to 2021) -0.0294*** -0.0354*** Boarding -0.0063*** -0.0065**** (0.00090) Outration>50% (2020 to 2021) -0.0294*** -0.0354*** Development 0.0006 -0.0001 Outration>50% (2020 to 2021) -0.0294*** -0.0354*** Education Supplies 0.0006 -0.0001 Outration Supplies*Year 2021 0.0065 0.0044** Operation/Maint 0.0013** 0.0013*** Education Supplies*Year 2021 -0.0357*** 0.0557*** Personnel 0.0016*** 0.0013** 0.0013** (0.000751) (0.00926) 0.0258*** 0.0339*** 0.0339*** 0.0339*** -0.0357***	Student-Teacher Natio	(0.00025)	(0.00035)		(0.00025)	(0.00035)
Expenditure per student (1000vt) Total School' Expenditure (0.00000) 0.0017*** 0.0023*** Admin 0.0017** 0.0043*** (per student, 1000 vt) 0.0017*** 0.0023*** Boarding -0.0063*** -0.0065*** Admin*Year 2021 -0.0294*** -0.0354*** Boarding -0.0063*** -0.0065*** Admin*Year 2021 -0.0294*** -0.0354*** Development 0.00072) (0.00090) Development*Year 2021 0.0065 0.0064 (0.00138) (0.00138) (0.00138) 0.0028** -0.033*** -0.0247*** Operation/Maint 0.0017** 0.0028** 0.0057*** 0.0057*** 0.0057*** Personnel 0.0017** 0.0028** 0.0028** 0.0057*** 0.0057*** 0.0016*** 0.0013** (0.00139) 0.0057*** 0.0557*** 0.0557*** 0.0016*** 0.0013** (0.0013** (0.00751) (0.00926) 0.00575	Total School' Income	0.0001***	-0.0000	Total School' Income	0.0001	-0.0002***
Admin 0.0017** 0.0043*** (per student, 1000 vt) (0.00024) (0.00031) Boarding -0.0063*** -0.0065*** (0.00154) Admin*Year 2021 -0.0294*** -0.0354*** Development 0.00172 (0.00090) Development*Year 2021 -0.0065 0.0065 0.0064 Education Supplies 0.0059*** 0.0103*** Education Supplies*Year 2021 -0.0393*** -0.0247*** Operation/Maint 0.0016*** 0.0028** 0.0028** 0.0028** 0.0028** Personnel 0.0016*** 0.0033*** 0.0033*** 0.0033*** 0.0033*** 0.0258*** 0.00339*** 0.0033*** 0.0033*** 0.0033*** 0.0033***	(per student, 1000 vt)	(0.00003)	(0.00005)	(per student, 1000 vt)	(0.00006)	(0.00009)
Admin 0.0001/1 0.0005 Variation (0.00024) (0.00072) (0.00072) (0.00090) Development*Year 2021 (0.00760) (0.000227) (0.000227) (0.00024) (0.00024) (0.00024) (0.00024) (0.00024) (0.00024) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.00247) (0.0024) (0.0024) (0.0024) (0.0024) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (0.0013) (Expenditure per student (1000vt)	1		Total School' Expenditure	0.0017***	0.0023***
$ \begin{array}{c} \mbox{(0.00066)} & (0.00086) & \mbox{Variation>50%} (2020 to 2021) \\ $	6 days in	0.0017**	0.0043***	(per student, 1000 vt)	(0.00024)	(0.00031)
Boarding (0.00106) (0.00154) (0.00792) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00972) (0.00978) (0.00978) (0.009792) (0.00978) (0.00978) (0.00978) (0.00978) (0.00978) (0.00927) (0.00927) (0.00927) (0.00927) (0.00927) (0.00927) (0.00927) (0.00927) (0.00927) (0.00927) (0.00928) <	Admin	(0.00066)	(0.00086)	Variation>50% (2020 to 2021)		
$ \begin{array}{c} (0.00106) & (0.00154) \\ \hline 0.0006 & -0.0001 \\ (0.00072) & (0.00090) \\ \hline 0.00072) & (0.00090) \\ \hline 0.0059^{***} & 0.0103^{***} \\ (0.00138) & (0.00193) \\ \hline 0.0032^{***} & 0.0028^{**} \\ (0.00138) & (0.00139) \\ \hline 0.0032^{***} & 0.0028^{**} \\ (0.00103) & (0.00139) \\ \hline 0.0016^{***} & 0.0013^{**} \\ (0.00138) & (0.00139) \\ \hline 0.0016^{***} & 0.0013^{**} \\ (0.00049) & (0.00066) \\ 0.0258^{***} & 0.0339^{***} \\ \hline \end{array} $	Poording	-0.0063***	-0.0065***	Admin*Voor 2021	-0.0294***	-0.0354***
Development (0.00072) (0.0090) (0.00927) Education Supplies 0.0059*** 0.0103*** Education Supplies*Year 2021 -0.0393*** -0.0247*** (0.00138) (0.00193) (0.00193) (0.00773) (0.00948) Operation/Maint 0.0022*** 0.0028** Operation/Maint*Year 2021 0.0557*** 0.0535*** Personnel 0.0016*** 0.0013** (0.00066) (0.00066) (0.0258*** 0.0339***	boarding	(0.00106)	(0.00154)	Admin' Year 2021	(0.00792)	(0.00978)
Education Supplies (0.00072) (0.00090) (0.00760) (0.00927) 0.0059*** 0.0103*** Education Supplies*Year 2021 -0.0393*** -0.0247*** (0.00138) (0.00193) 0.0028** 0.0028** 0.00557*** 0.00557*** 0.00103) (0.00139) Operation/Maint*Year 2021 0.0557*** 0.05557*** 0.00326) Personnel 0.0016*** 0.0013** 0.0013** (0.00066) 0.0258*** 0.0339***	Development	0.0006	-0.0001	Development*Veer 2021	0.0065	0.0064
Education Supplies (0.00138) (0.00193) (0.00773) (0.00948) Operation/Maint 0.0032*** 0.0028** Operation/Maint*Year 2021 0.0557*** 0.0535*** Personnel 0.0016*** 0.0013** 0.0013** (0.00066) 0.0258*** 0.0339***	Development	(0.00072)	(0.00090)	Development Fear 2021	(0.00760)	(0.00927)
Education Supplies (0.00138) (0.00193) (0.00773) (0.00948) Operation/Maint 0.0032*** 0.0028** Operation/Maint*Year 2021 0.0557*** 0.0535*** Personnel 0.0016*** 0.0013** (0.00066) 0.0258*** 0.0339***	Education Curries	0.0059***		Education Cumplicatives 2024		-0.0247***
Operation/Maint 0.0032*** 0.0028** Operation/Maint*Year 2021 0.0557*** 0.0535*** (0.00103) (0.00139) 0.0016*** 0.0013** (0.00751) (0.00926) Personnel (0.00049) (0.00066) 0.0339*** 0.0339***	Education Supplies	(0.00138)	(0.00193)	Education Supplies*Year 2021		
Operation/Maint Operation/Maint*Year 2021 (0.00103) (0.00139) (0.00751) (0.00926) Personnel 0.0016*** 0.0013** (0.00066) 0.0258*** 0.0339***	Operation /Maint			One wetter /Mater **** 2001		0.0535***
Personnel 0.0016*** 0.0013** (0.00049) (0.00066) 0.0258*** 0.0339***	Operation/ waint			Operation/Waint*Year 2021		
Personnel (0.00049) (0.00066) 0.0258*** 0.0339***	Development				· · ·	
0.0258*** 0.0339***	Personnel					
Suspense Account	C	. ,				
(0.00290) (0.00406)	Suspense Account					

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Rural	-0.0872***	-0.0997***	Rural	-0.0944***	-0.1090*
	(0.01225)	(0.01511)	itaria	(0.01263)	(0.01555
Island			Island		
Akamb	-0.1556***	-0.2745***	Akamb	-0.1560***	-0.2712*
AKallip	(0.05070)	(0.06728)	AKallin	(0.05066)	(0.06737
Ambaa	0.1663***	0.1375***	Ambae	0.1704***	0.1420**
Ambae	(0.01785)	(0.02223)	Ambae	(0.01788)	(0.02207
	0.0418**	0.0092		0.0614***	0.0274
Ambrym	(0.01768)	(0.02321)	Ambrym	(0.01795)	(0.02343
A	-0.0684**	-0.2405***	Anaituum	-0.0829***	-0.2642*
Aneityum	(0.02723)	(0.03396)	Aneityum	(0.02724)	(0.0340)
Aniwa	0.2134**	-0.0486	Aniwa	0.2033**	-0.0589
Aniwa	(0.09476)	(0.11605)	Aniwa	(0.09450)	(0.11581
Atobin	-0.0242	-0.1017	A tok in	-0.0266	-0.1135
Atchin	(0.05445)	(0.06482)	Atchin	(0.05486)	(0.06540
Durainan	0.5131***	0.4699***	Dunings	0.5227***	0.4766**
Buninga	(0.09558)	(0.08481)	Buninga	(0.09564)	(0.0851)
	0.1063***	0.0396**		0.1253***	0.0652**
Efate	(0.01376)	(0.01799)	Efate	(0.01384)	(0.01802
	0.4492***	0.2859***	_	0.4504***	0.2896*
Emae	(0.06044)	(0.07649)	Emae	(0.06103)	(0.07680
	0.1315***	0.0294		0.1353***	0.0368
Emau	(0.03398)	(0.04694)	Emau	(0.03401)	(0.04683
	0.0833***	0.0805***		0.0855***	0.0885**
Ері	(0.01880)	(0.02416)	Epi	(0.01883)	(0.02407
	-0.1216***	-0.1411***		-0.1207***	-0.1453*
Erromango	(0.02590)	(0.03560)	Erromango	(0.02582)	(0.03566
	0.0048	0.1373**		0.0094	0.1334*
Futuna	(0.03242)	(0.05425)	Futuna	(0.03210)	(0.0541
	0.1363***	-0.0425		0.1456***	-0.0252
Gaua	(0.03762)	(0.04945)	Gaua	(0.03719)	(0.04914
	0.1232	-0.1143		0.1394*	-0.1054
Lelepa	(0.08407)	(0.10422)	Lelepa	(0.08414)	(0.1043)
	0.1367***	0.1445***		0.1396***	0.1515*
Luganville	(0.01522)	(0.02006)	Luganville	(0.01561)	(0.02046
	0.2640***	0.2783***		0.2635***	0.2713**
Maewo			Maewo		
	(0.02210) 0.0910***	(0.02782) 0.0621***		(0.02217) 0.0840***	(0.02784 0.0532**
Malekula		0.0631***	Malekula		
	(0.01062)	(0.01421)		(0.01063)	(0.01421
Malo	0.0157	-0.0394	Malo	0.0131	-0.0486
	(0.02191)	(0.02974)		(0.02220)	(0.02986
Mataso	0.6752***	0.4117***	Mataso	0.6698***	0.4110**
	(0.01735)	(0.13823)		(0.01662)	(0.13753
Mavea	0.1814***	0.1097	Mavea	0.2132***	0.1504*
	(0.05881)	(0.08700)		(0.05779)	(0.08479
Mere Lava	-0.0412	0.0076	Mere Lava	-0.0125	0.0433
	(0.04182)	(0.05886)		(0.04271)	(0.05912

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

	-0.0144	-0.0449		0.0261	0.0436
Mota Lava	(0.03124)	(0.03653)	Mota Lava	(0.03184)	(0.03697)
	0.2033***	0.0834**		0.2914***	0.2061***
Nguna	(0.02579)	(0.03425)	Nguna	(0.02449)	(0.03317)
Deeme	-0.0475	-0.1470***	Deama	-0.0216	-0.1084**
Paama	(0.03305)	(0.04291)	Paama	(0.03602)	(0.04557)
Dala	-0.0761**	-0.3860***	Dele	-0.0710*	-0.3826***
Pele	(0.03864)	(0.06179)	Pele	(0.03864)	(0.06187)
Dontocost	0.2348***	0.1853***	Dontocost	0.2268***	0.1771***
Pentecost	(0.01548)	(0.01962)	Pentecost	(0.01572)	(0.01984)
Port Vila	0.1625***	0.0574***	Port Vila	0.1999***	0.1176***
POIL VIId	(0.01430)	(0.01784)		(0.01393)	(0.01759)
Santa	0.0767***	0.0638***	Santo	0.0628***	0.0473***
Santo	(0.01248)	(0.01594)	Santo	(0.01269)	(0.01606)
Tongoriki	0.0091	0.0690	Tongoriki	0.0168	0.0677
Tongariki	(0.03888)	(0.05421)	Tongariki	(0.03930)	(0.05458)
Tongoo	0.0099	-0.1120**	Tongoo	0.0322	-0.0786
Tongoa	(0.04567)	(0.05580)	Tongoa	(0.04590)	(0.05594)
Torres	-0.1135***	-0.4249***	Torres	-0.1184***	-0.4202***
Torres	(0.04009)	(0.05430)	Torres	(0.03999)	(0.05419)
Tutuba	-0.3042***	-0.6289***	Tutuba	-0.3131***	-0.6493***
Tutuba	(0.04996)	(0.06337)	Tutuba	(0.05012)	(0.06319)
Ureparapara	0.3242***	0.6084***	Ureparapara	0.3554***	0.6615***
Oreparapara	(0.07852)	(0.12341)	Ulepalapala	(0.07841)	(0.12317)
Vanua Lava	-0.2958***	-0.3698***	Vanua Lava	-0.2717***	-0.3356***
	(0.02877)	(0.03635)		(0.02840)	(0.03575)
Constant	1.3098***	1.9752***	Constant	1.3359***	2.0100***
	(0.03011)	(0.03872)		(0.03073)	(0.03938)
Observations	25,662	25,675	Observations	24,985	25,012
R-squared	0.195	0.183	R-squared	0.194	0.185

Statistical significance: *** p<0.01, ** p<0.05, * p<0.1

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

References

Aidoo, T., Kenya records over 150,000 teenage pregnancies during COVID-19 lockdown, in Face 2 Face Africa. 2020.

Brookings (2021), How has education technology impacted student learning in India during COVID 19?. Available online at <u>https://www.brookings.edu/blog/education-plus-development/2021/08/23/how-has-education-technology-impacted-student-learning-in-india-during-covid-19/</u>

Connell, J. (2021), COVID-19 and tourism in Pacific SIDS: lessons from Fiji, Vanuatu and Samoa?. The Commonwealth Journal of International Affairs. Volume 110. Available online at https://doi.org/10.1080/00358533.2021.1875721

Connell, J. and Taulealo, T. (2021). Island Tourism and COVID-19 in Vanuatu and Samoa: An Unfolding Crisis. Small States & Territories, 4(1), 2021, 105-124. Available online at https://www.um.edu.mt/library/oar/bitstream/123456789/74986/1/SST4(1)A6.pdf?fbclid=lwAR0Wvug3flRLr74U3UJIFMU6eaDhKleBLyt9U919h3iw8HY3UMbal4zR1VY

Global Partnership for Education (2021), What we do. Available online at https://www.globalpartnership.org/what-we-do/education-crisis

Intergovernmental Panel of Climate Change (IPCC) (2022), Climate Change 2022: Impacts, Adaptation and Vulnerablity, Summary of Policymakers. Available online at <u>https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pd</u>

Kidman, R., Breton, E., Behrman, J. and H-P Kolher (2022. Returning to school after COVID-19: closures Who is missing in Malawi?

Mathrani, A., Sarvesh, T. & Umer, R. (2022) Digital divide framework: online learning in developing countries during the COVID-19 lockdown, Globalisation, Societies and Education, 20:5, 625-640, https://doi.org/10.1080/14767724.2021.1981253

MEHA (Ministry of Education, Heritage and Arts), Responsibilities of stakeholders during COVID and in preparation for school re-opening with associated checklist

MEHRD (Ministry of Education and Human Resources Development Solomon Islands) (2015), Policy Statement and Guidelines For Disaster Preparedness And Education In Emergency Situations In Solomon Islands

Miller, P. (2020), Virtual learning under lockdown casts doubt on Kenya as the Silicon Savannah. Available online at <u>https://blogs.lse.ac.uk/africaatlse/2020/08/19/virtual-learning-lockdown-casts-doubt-kenya-silicon-savannah-digital-education/</u>

MEYS (Ministry of Education, Youth and Sport, Timor-Leste) (2021), Rapid Assessment into Preparations for Safe School Re-opening

MESC (Ministry of Education, Science and Culture, Samoa) (2019), National Education Strategic Plan 2019-2024)

MEHRD (Ministry of Education and Human Resources Development, Solomon Islands (2022), National Education Action Plan

MoET (2020), Vanuatu Education and Training Strategic Plan. Available online at https://assets.globalpartnership.org/s3fs-public/document/file/2020-08-education-training-sector-strategic-plan-2020-2030-vanuatu.pdf?VersionId=CesbngWJa3PrzU1L7IHfRyB5DdNzTzbC

MoET (2022) Standard Operating Procedures. Available online at <u>https://education.gov.vu/docs/covid-updates/Safe%20School%20Reopening%20Guideline%20for%20Vanuatu.pdf</u>

OECD (2020), OECD Policy Responses to Coronavirus (COVID-19): Combatting COVID-19's effect on children. Available online at <u>https://www.oecd.org/coronavirus/policy-responses/combatting-covid-19-s-effect-on-children-2e1f3b2f/</u>

Pacific Community (2022), The Pacific Plan for Strategic Development 2022-2031 for Sustainable Pacific Development through Science, Knowledge and Innovation. Available online at https://spccfpstore1.blob.core.windows.net/digitallibrarydocs/files/24/2436e1939bd126e2795ca454897ed613.pdf?sv=2015-12-11&sr=b&sig=gxK2vmBNqol6aXBYnDhrQuUuzisVAC004fWzhcnlfNw%3D&se=2023-04-07T13%3A51%3A22Z&sp=r&rscc=public%2C%20max-age%3D864000%2C%20maxstale%3D86400&rsct=application%2Fpdf&rscd=inline%3B%20filename%3D%22Strategic_Plan_2022 _2031.pdf%22

PIFS (2018), Boe Declaration of Regional Security. Available online at https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/

Terauds, K. (2022), Prospects for the post-pandemic tourism and economic recovery in Vanuatu. UNCTAD Research Paper, no. 86

UNESCO (2020), UNESCO, UNICEF, World Bank (2020). What Have We Learnt? Overview of findings from a survey of ministries of education on national responses to Covid-19. Available online at http://covid19.uis.unesco.org/publications/

UNESCO (2020), COVID-19 is a serious threat to aid to education recovery

UNESCO (2021), School Closures and Regional Policies to Mitigate Learning Loss due to COVID-19: A Focus on the Asia-Pacific. Available online at <u>https://uis.unesco.org/sites/default/files/documents/school_closures_and_regional_policies_to_mitigat</u> e learning losses in asia pacific.pdf

UNESCO (n.d), Adverse consequences of school closures. Available online at https://en.unesco.org/covid19/educationresponse/consequences

Vanuatu National Statistics Office (VNSO) (2020), National Population and Housing Census 2020

Assessing the impact of COVID-19 on education in Vanuatu | May 2023

Vanuatu, Government of (2020), TC Harold Post Disaster Needs Assessment

World Bank (2021), Urgent, Effective Action Required to Quell the Impact of COVID-19 on Education Worldwide Available online at: <u>https://www.worldbank.org/en/news/immersive-</u>story/2021/01/22/urgent-effective-action-required-to-quell-the-impact-of-covid-19-on-education-worldwide

World Economic Forum (2022), COVID created an education crisis that has pushed millions of children into 'learning poverty' report. Summary of report available online at https://www.weforum.org/agenda/2022/07/education-schools-pandemic-learning-poverty/

