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Papua New Guinea

EDUCATION BUDGET BRIEF 2025

May 30, 2025

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Executive Summary

Too many children in Papua New Guinea (PNG) are missing out on education, limiting the country's ability to develop its human capital and achieve sustained economic growth. Nearly one in four children of primary or secondary school age is not attending school. Among those who are enrolled, many do not acquire the foundational skills necessary to progress through the education system. According to the 2021 Pacific Islands Literacy and Numeracy Assessment (PILNA), one in three Grade 5 students did not meet the minimum proficiency level in numeracy, and two in five did not meet the minimum reading standard.

Student learning assessments and surveys have shed light on the key impediments to learning outcomes in PNG. One significant barrier to student learning is that many children enter school unprepared. This lack of school readiness is primarily driven by high levels of chronic malnutrition and limited access to early childhood education (ECE). In addition, poor access to textbooks and inadequate school infrastructure further constrain learning. Teacher preparedness is also a major challenge. Many teachers lack the training required to teach effectively, which directly impacts learning outcomes. And finally, the education system's capacity to manage and support its workforce and institutions is inadequate. As the sector has expanded, oversight, monitoring, and data systems have not kept pace.

The PNG education sector budget totals K4.8 billion (US\$1.3 billion) in 2025, representing a 13 percent increase (K487 million or US\$136 million) over 2024. The sector's share of the total government budget has risen from 15.5 percent in 2024 to 17.0 percent in 2025. Ninety-three percent of this budget is financed through domestic revenue, with the remainder financed by development partners. Real per-student funding (in 2022 constant prices) has increased since 2021, reversing a prior downward trend.

Most of the additional funding has been allocated to teacher salaries, which helps reduce the risk of budget overruns and, thereby, improving budget credibility. Over the past decade, actual spending on teacher compensation exceeded the approved budget by an average of 23 percent. Although salary overruns are expected to continue in 2025, the gap between budgeted and actual spending is projected to narrow. Additional resources have also been allocated to public investment programs (PIPs). While these investments are necessary, execution rates have historically been low, which raises concerns that the 2025 allocation may not be fully utilized.

The 2025 budget for school grants (GTFS) does not fully meet the estimated program cost, creating uncertainty for school operations and risking negative impacts on student learning. Wages continue to dominate the education budget, though the share allocated to capital investment has slightly increased in 2025. More than half of the budget is allocated to elementary and primary education, despite the government's goal to expand access to secondary education and Technical and Vocational Education and Training (TVET).

Some program components, addressing the barriers to student learning, are critically underfunded in the 2025 education sector budget. Investing in teacher professional development (TPD) is essential for improving learning outcomes, especially as many teachers do not meet the minimum qualification standards. However, the program remains critically underfunded. Similarly, a persistent shortage of textbooks continues to hinder student learning, while government funding for textbook procurement has declined in 2025. Moreover, the 2025 education budget does not allocate sufficient funds for infrastructure maintenance and the construction for sanitation facilities, which are essential for creating conducive learning environments.¹

¹ In addition to the education sector's capital budget for new infrastructure and large maintenance works managed by the central government, the school grant policy (GTFS) covers funding for routine/periodic maintenance issues and the provincial- and district services improvement program (PSIP/DSIP) grants include a guidance on education infrastructure spending. However, for both the GTFS and PSIP/DSIP grants it is unclear how much is being spent on school infrastructure and maintenance.

Key Recommendations:

- **First, prioritize investments in education quality by addressing the core barriers to learning.** TPD – specifically providing training to teachers in the use of structured lesson plans - has proven to be a highly cost-effective intervention in a variety of contexts, including in PNG. A comprehensive TPD program is estimated to cost K277 million (US\$77 million) annually – K261 million (US\$73 million) more than currently allocated in 2025. In addition, more funding is required for student learning materials, particularly textbooks. An additional K192 million (US\$53.6 million) per year is needed to ensure all students (grades 1 to 12) have access to textbooks. Moreover, funding is required for critical infrastructure maintenance and sanitation upgrading needs, which will improve learning conditions and reduce dropout rates. This requires an annual investment of K261 million (US\$73 million) over five years. And finally, the recurrent costs of expanding access to ECE – if enrollment targets identified in the National Education Plan (2020-2029) are met – is estimated at K97 million (US\$ 27 million) by the end of 2024. These critical investments would enhance learning outcomes but would also require a significant increase in education funding. The education budget would need to rise to around 20 percent of the total government budget, or 4.1 percent of GDP.
- **Second, while increasing education funding is crucial for improving learning outcomes, both spending equity and efficiency must also be strengthened.** Education funding is not equitably distributed across PNG’s provinces, with per-student spending being lower in poorer provinces. A more equitable distribution of teachers could significantly improve educational equity, but a deeper analysis of the underlying causes of these disparities is needed. Additionally, the school grants policy could serve as another tool to promote equity. Efficiency analysis of education spending suggests that PNG could achieve substantial improvements by enhancing spending efficiency. For instance, gains could be made by reducing teacher absenteeism, improving teacher training and support, lowering teacher turnover, decreasing student dropout rates, and enhancing transparency in school grant spending.
- **Third, strengthen wage bill spending controls and align future teacher compensation with qualifications, effort, and performance.** While teacher salaries in PNG are relatively competitive, unconditional pay increases have not proven to be a cost-effective strategy for improving student learning outcomes. Evidence from Indonesia indicates that such increases do not lead to better student performance. In contrast, well-designed performance-based incentives—when combined with improvements in the teaching and learning environment—can positively impact teacher effectiveness and student achievement.
- **And fourth, leverage modern technologies to improve data systems.** Key functions in PNG’s education system are still performed paper-based and suffer from poor compliance and response rates. Lack of reliable data often results in budgeting oversights and neglect of the schools’ physical conditions. By modernizing data collection and management, PNG can better track sector performance, manage teacher deployment, delivery TPD, and allocate resources more effectively – particularly in light of the country’s challenging geography.

1. What are the challenges facing the education sector in PNG?

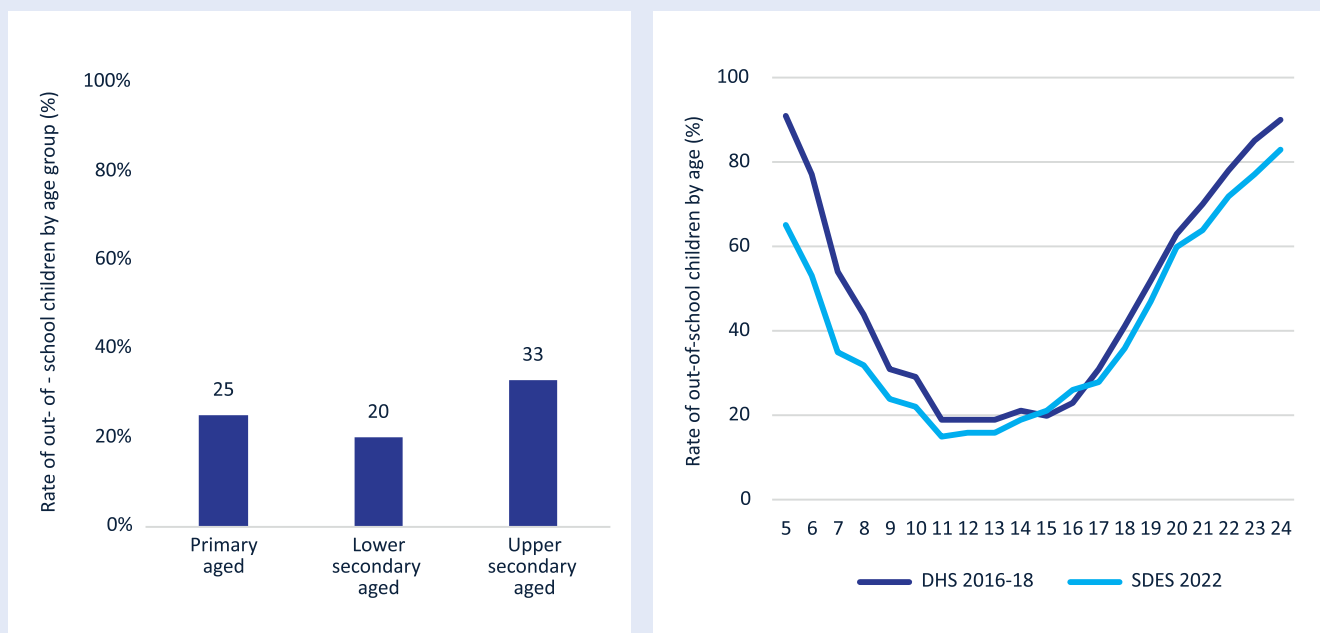
1.1 A significant number of children are not attending school, and many children who do attend school are not acquiring basic literacy and numeracy skills.

Too many children in Papua New Guinea (PNG) are missing out on education, which limits the country's ability to develop its human capital and achieve sustained economic growth. Almost one out of four children of primary or secondary school age is not attending school in PNG. This is particularly concerning, as education is a key driver of productivity, employment opportunities, and long-term national development. According to 2022 Socio-Demographic and Economic Survey (SDES 2022) data, 25 percent of primary-aged children (aged 7 to 12), 20 percent of lower-secondary-aged children (aged 13 to 16), and 33 percent of upper-secondary-aged children (aged 17 to 18) are not attending school (see, Figure 1). Out-of-school rates are especially high for children aged 5-9 and aged 18 and older.²

Net school attendance rates are considerably lower than gross school attendance rates, as many children in PNG start their formal education late and are older than the expected age for their grade. SDES 2022 data estimated net school attendance rates (that is, the percentage of children of official grade age attending the given grade) as low as 52 percent for primary-aged students and only 22 percent for secondary aged students.³

Figure 01

Despite improvements in reducing the rate of out-of-school children, one in four primary school-aged children in Papua New Guinea are still not attending school.



Data source: PNG Socio-Demographic and Economic Survey 2022, and PNG Demographic and Health Survey 2016 – 2018.

² PNG is currently transitioning from its 3-6-4 education system (elementary-primary-secondary) to a 1-6-6 system (prep-primary-secondary), aligned to international standards. Data presented in this section is aligned to the 1-6-6 system.

³ Reliable gross and net enrollment rates cannot be established as the latest population census took place in 2011.

Once in school, many students in PNG are not acquiring the foundational skills needed to successfully progress to higher levels of education. According to the 2021 Pacific Islands Literacy and Numeracy Assessment (PILNA), one in three Grade 5 students did not meet the minimum proficiency level in numeracy, and two in five did not meet the minimum proficiency standard in reading. While there has been some improvement in average reading performance – from a score of 480 in 2014 to 509 in 2021 – progress in numeracy has declined, with average scores dropping from 539 in 2018 to 529 in 2021.⁴ These results highlight the urgent need to address the barriers to student learning and ensure students acquire the essential skills required for future academic success. The main focus of this 2025 budget brief is on basic education and foundational learning (i.e. literacy and numeracy) as this is a key bottleneck for the further expansion of secondary and tertiary student enrollment in PNG.

1.2 Education outcomes are poor because students are not ready to learn and lack critical education inputs, teachers are unprepared to teach, and education management has not adequately kept pace with sector growth.

A significant barrier to student learning in PNG is that many children enter school unprepared to learn. This lack of school readiness is driven by two factors: high levels of chronic malnutrition and limited access to early childhood education (ECE). Nearly 45% of children under the age of five are chronically malnourished (stunted)⁵– one of the highest rates in the world. Children who are stunted by age five are likely to struggle throughout their entire school journey. Compounding this issue, and despite the government’s plans to expand access to formal ECE (as articulated in the National Education Plan 2020-2029), 92 percent of current primary school students did not attend any form of ECE. As a result, most children begin primary school without the foundational cognitive, social, and emotional skills needed for successful learning.

Limited access to essential learning resources and school infrastructure is another major barrier to student learning. Many schools lack basic materials necessary for effective teaching and learning. For example, the majority of Grade 5 students do not have access to textbooks, with only 7 percent having a literacy textbook and 13 percent a numeracy textbook.⁶ Nearly half of all students attend schools that face significant resource constraints, including overcrowded or poorly equipped classrooms. According to the 2019 school census, two-thirds of existing schools require either minor or major maintenance, highlighting the urgent need for investment in infrastructure and learning materials to create quality learning environments.

Teacher preparedness also remains a major challenge. Many teachers are not adequately prepared to teach, which directly impacts student learning outcomes. Evidence indicates that 25 percent of primary school teachers do not apply effective instructional practices,⁷ such as providing feedback or checking for student understanding. Additionally, one in four Grade 2 teachers failed a mathematics assessment based on the Grade 2 curriculum,⁸ highlighting significant gaps in subject knowledge and pedagogical capacity. This is particularly concerning, as no school-based factor has a greater influence on student learning than teacher quality. Despite this, opportunities for in-service training and professional development are still limited. As a result, even when students are present and ready to learn, their educational progress is constrained by ineffective or misaligned instruction.

⁴ Papua New Guinea, Pacific Islands Literacy & Numeracy Assessment (PILNA) 2021.

⁵ Papua New Guinea, Demographic and Health Survey (2016 – 2018).

⁶ Papua New Guinea, Pacific Islands Literacy & Numeracy Assessment (PILNA) 2021.

⁷ Specifically, in PILNA 2021, teachers were asked how frequently they deployed each of the following seven teaching practices (considered effective to engage students): (1) Relate the lesson to students’ daily lives; (2) Ask students to explain their answers; (3) Bring interesting materials to class; (4) Ask students to complete challenging exercises that require them to go beyond the instruction; (5) Encourage classroom discussion among students; (6) Ask students to decide on their own problem-solving procedures; and (7) Encourage students to express their ideas in class.

⁸ Namit, K. (2018) RISE PNG Elementary Teachers’ Math Subject Knowledge Assessment Report, Save the Children, Papua New Guinea, Port Moresby.

Finally, the education system’s capacity to effectively manage and support its workforce and institutions is inadequate. As the sector has expanded, the systems responsible for teacher oversight, school monitoring, and data management have not kept pace. Currently, over 90 percent of teachers are still awaiting inspection for full registration, confirmation, or promotion.⁹ This backlog undermines accountability, motivation, and professional advancement across the teaching workforce. At the school level, administrative performance also remains weak: in 2022, only 46 percent of schools submitted their annual census reports by the end of the year.¹⁰ This severely hampers the government’s ability to make data-informed decisions and allocate resources effectively.

⁹ Papua New Guinea Economic Update: Invest in your children, 2024.

¹⁰ Report of the Global Partnership for Education’s Independent Technical Advisory Panel (ITAP). Assessment of Enabling Factors Papua New Guinea. October 2023.

2. How much did PNG allocate for education in 2025?

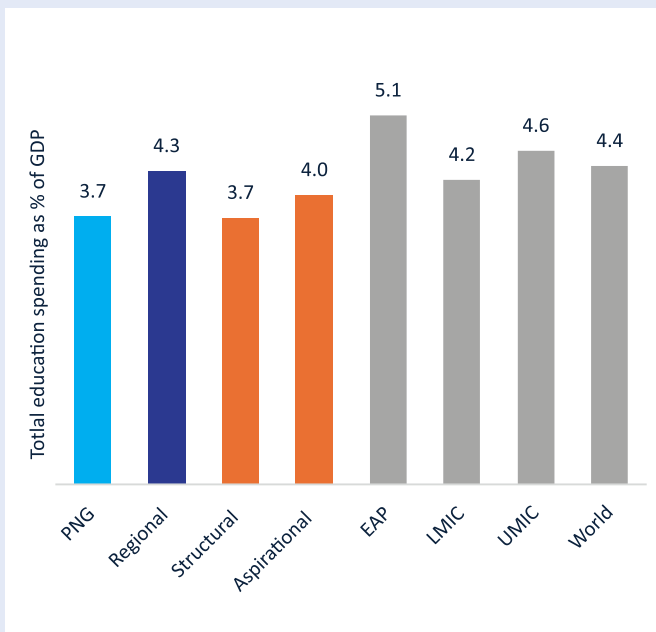
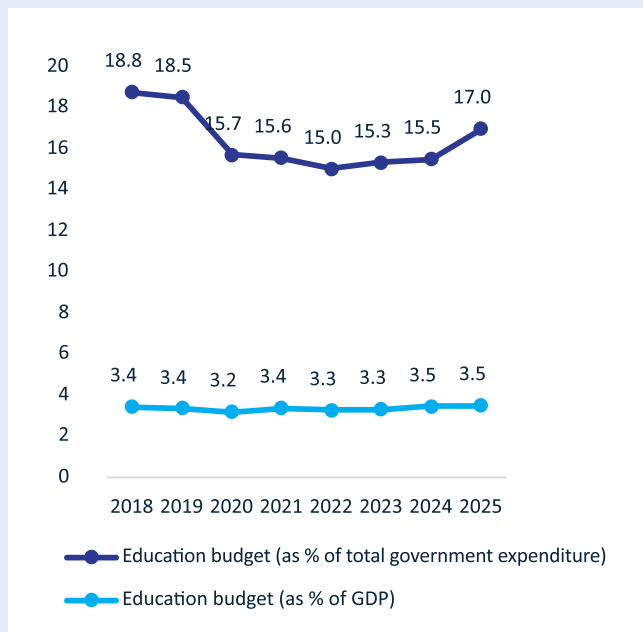
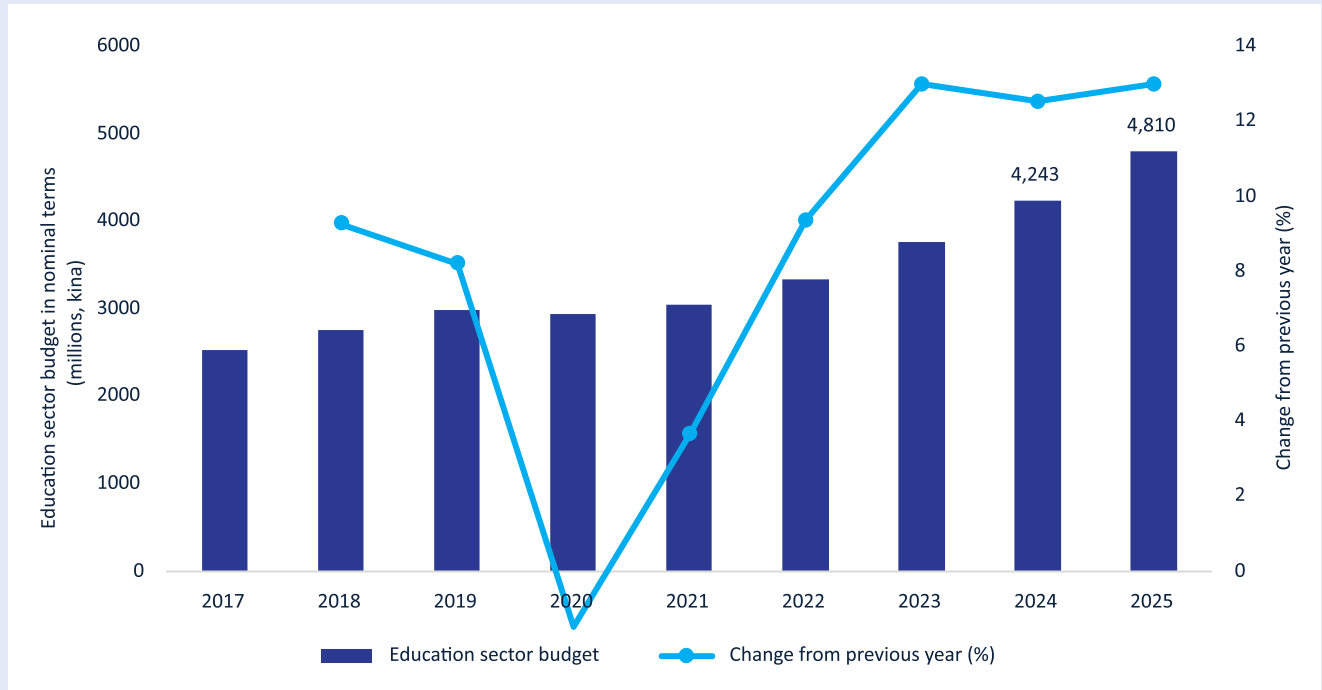
2.1 For the third consecutive year, the education sector budget, in nominal terms, rose by around 13 percent year-on-year.

The PNG education sector budget totals **K4.8 billion (US\$ 1.3 billion) in 2025, a 13 percent, or K487 million (US\$ 136 million) increase compared to 2024**, (see, *Figure 2*). As a result, the sector's share of the total government budget rose from 15.5 percent in 2024, to 17.0 percent in 2025, marking the first time it has reached that relative size since 2020, and underscoring the government's commitment to the education sector, even as it pursues broader fiscal consolidation efforts. However, as a share of the total government budget, the education sector still remains below the 18.8 percent observed in 2018. The 2025 education sector budget amounts to 3.5 percent of GDP, similar to 2024 and a slight increase compared to preceding years. Actual education sector spending in 2024 amounted to 3.7 percent of GDP, considerably lower than the average of its regional peers (4.3 percent) and aspirational peers (4.0 percent), but equal to its structural peers. The budget's double-digit year-on-year increase exceeds the estimated growth in service delivery costs, driven by rising student numbers and inflation,¹¹ creating additional fiscal space that could have been used to enhance education access or quality. However, most of the additional funds in the 2025 budget were directed toward covering salary overruns, as the 2024 budget had underfunded the sector's wage bill.

¹¹ That is, the combined effects of the 2 percent student growth rate (average from 2019 to 2023) and the 5 percent inflation rate.

Figure 02

The 2025 education sector budget increased 13 percent compared to 2024, reaching a total allocation of K4.8 billion (US\$ 1.3 billion) (top center panel) and leading to its share of the total government budget rising to 17.0 percent (left bottom panel), but spending is still low compared to its regional and aspirational peers (bottom right panel).



Source: PNG budget: World Bank staff calculations using data from the BOOST database (2017 – 2024) and the Budget Book 2025; PNG actual spending: BOOST data 2024; peer country actual spending and regional averages: Indonesia and Timor-Leste: Human Capital Index 2020 (2018); other peer countries: World Development Indicators retrieved April 18th, 2025 (2023 or latest year available); regions: Education Finance Watch database 2024 (2022).

2.2 Most of the budget increase is financed through domestic revenues, supporting the long-term sustainability of education sector funding.

Out of the total K4.8 billion (US\$1.34 billion) education budget for 2025, K4.5 billion (US\$1.25 billion) is financed through domestic revenues, while the remaining K0.3 billion (US\$80 million) comes from financial assistance provided by development partners. This increases the share of the education budget funded by domestic sources from 91 percent in 2024 to 93 percent in 2025 (see Figure 3). Most of the additional funding in the 2025 budget has been allocated to teacher salaries (K342 million, US\$95.3 million), followed by allocations to universities (K91 million, US\$25.4 million),¹² the Department of Higher Education, Research, Science and Technology (DHERST [K59 million, US\$16 million]), and the National Department of Education (NDoE [K52 million, US\$14.5 million]).

Figure 03

Domestic revenues are financing 93 percent of the 2025 education sector budget (left panel). Teacher salaries received the largest share of this additional funding (right panel).



Source: World Bank staff calculations using data from the BOOST database (2018 – 2024) and the budget book 2025.

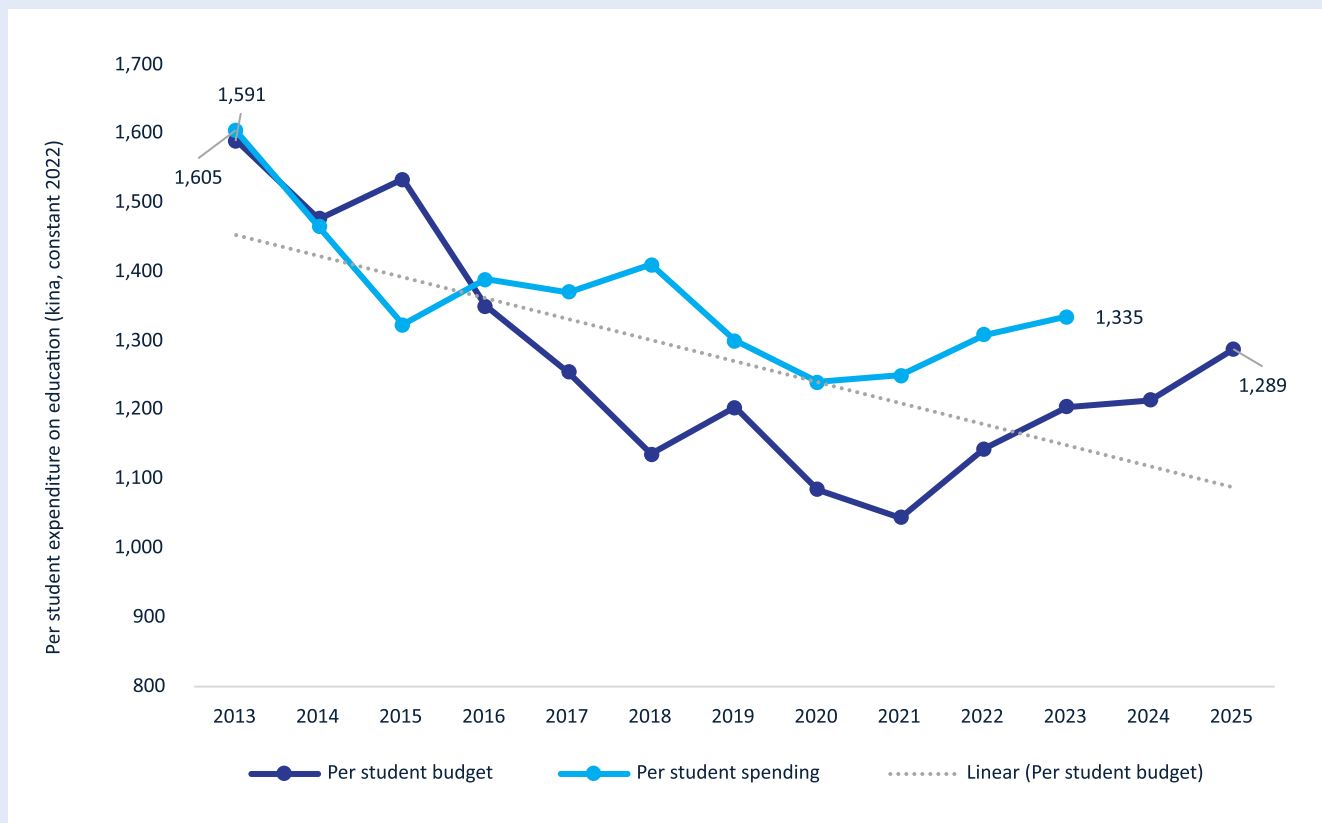
¹² Universities include (i) University of Papua New Guinea, (ii) University of Technology, (iii) University of Goroka, (iv) University of Environment and Natural Resources, (v) PNG Maritime College, (vi) PNG Science and Technology Secretariat and (vii) National Research Institute.

2.3 In 2025, the per-student budget allocation rose considerably, in real terms, continuing an upwards trend since 2021, but is still significantly lower than in 2013.

Real per-student budgets (in 2022 constant prices) have increased since 2021, reversing a previous downward trend. Over the past decade, per-student funding declined as budget allocations failed to keep pace with rapid student enrollment growth and rising costs of goods and services. However, over the past four years, nominal budget increases have outpaced both inflation and student growth, restoring real per-student funding above its 2017 level of K1,255 (US\$349) to K1,289 (US\$359) in 2025 (see Figure 4). Despite this recent progress, real per-student funding in 2025 remains 20 percent below the 2013 level, when it reached K1,591 (US\$443).

Figure 04

Per student budget continues to recover from downward trends and recently surpassed the 2017 level.



Source: World Bank staff calculations using data from the BOOST database (2013 – 2024) and Budget Book 2025.

3. How have the additional resources been allocated and prioritized in the 2025 education sector budget?

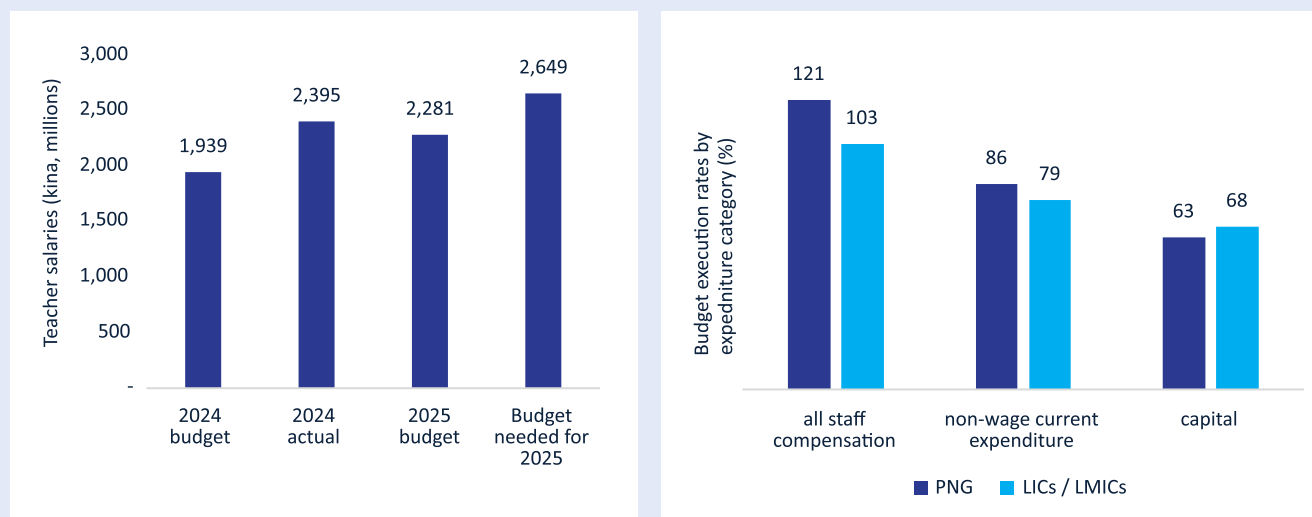
3.1 Most additional resources have been allocated to teacher salaries, lowering the risk of significant overruns in 2025 and, thereby, improving budget credibility.

Over the past decade, actual spending on staff compensation exceeded approved spending every fiscal year, on average by 21 percent (at the national aggregate). In the 2025 budget, the government took a significant step toward improving budget credibility by aligning the teacher salary budget more closely with actual expenditure. A significant portion of the additional education budget in 2025 – about 60 percent or K342 million (US\$ 95 million) – is allocated to teacher salaries. For the first time since 2017, the allocated budget for teacher salaries in 2025 nearly matches the amount spent in 2024, which was K2.39 billion (US\$ 0.66 billion).¹³ Salary increases vary across provinces, ranging from 5 percent in Milne Bay to 29 percent in East Sepik (see, Figure 5). The pattern of these increases closely aligns with actual spending levels in 2024.

PNG's staff compensation execution rates (average 2015-2024), for the education sector, are considerably higher than the average for low-income and lower-middle-income countries (LICs/LMICs), see Figure 5. Budget overruns on staff compensation are not uncommon among LICs/LMICs, where averaged execution rates on staff compensation are 103 percent. Conversely, PNG's average (2015-2024) execution rate for capital expenditure (63 percent) is somewhat lower than the average execution rate among LIC/LMICs (86 percent).

Figure 05

The teacher salaries budget in 2025 totaled K2,281 million (US\$ 0.64 billion), reflecting an 18 percent increase (K342 million, US\$ 95 million) from K1,939 million (US\$ 0.54 billion) in 2024 (left panel). The salary increases varied across provinces, ranging from 5 percent to 29 percent (right panel).



Source: World Bank staff calculations using data from the BOOST database 2024 and Budget Book 2025; Execution rates: PNG average BOOST database (2015-2024), LIC/LMIC averages: World Bank - Education Finance Watch 2023. Note: The estimated budget for 2025 is based on the average teacher salaries multiplied by the number of teachers required to maintain a student-teacher ratio (STR) of 1:35 at the elementary and primary levels, and 1:30 at the secondary and vocational levels.

¹³ Over the past seven years, the budget allocated for teacher salaries has averaged 14 percent less than the amount spent the preceding year.

Teacher salary overruns are expected to persist in 2025, though the gap between budgeted and actual spending is projected to narrow somewhat compared to previous years. Between 2017 and 2023, actual teacher salary expenditures exceeded budget allocations by 19 to 37 percent (see Figure 6). For 2025, the estimated salary requirement is K2.64 billion (US\$0.74 billion), which is 16 percent higher than the allocated budget. These salary overruns can partly be attributed to two factors: (i) salary adjustments¹⁴ and (ii) ongoing recruitment of new teachers. However, the structural and recurring nature of these overruns suggests that the budget is not functioning effectively as a control on salary expenditures, and it might point to wage bill decisions being made (at the provincial level) independently of broader fiscal constraints. Persistent over-execution undermines the budget's role as a sector planning and management tool and poses several risks, including salary payment disruptions, the accumulation of arrears, and delays in teacher recruitment.

Figure 06

Historically, teacher salary expenditures have exceeded the allocated budget every year, ranging from 20 percent to 40 percent over the initial allocation.

	Teacher salaries (Execution rate)						
	2017	2018	2019	2020	2021	2022	2023
571-Fly River Provincial Administration	139%	125%	127%	136%	116%	115%	108%
572-Gulf Provincial Administration	111%	122%	124%	137%	113%	117%	110%
573-Central Provincial Administration	143%	131%	115%	132%	112%	113%	128%
575-Milne Bay Provincial Administration	105%	124%	124%	129%	119%	117%	108%
576-Oro Provincial Administration	113%	129%	117%	132%	114%	113%	126%
577-Southern Highlands Provincial Administration	152%	152%	177%	186%	131%	136%	132%
578-Enga Provincial Administration	172%	127%	134%	149%	109%	111%	113%
579-Western Highlands Provincial Administration	117%	133%	118%	128%	119%	122%	117%
580-Simbu Provincial Administration	116%	125%	119%	128%	122%	127%	118%
581-Eastern Highlands Provincial Administration	123%	139%	119%	131%	116%	121%	118%
582-Morobe Provincial Administration	123%	133%	128%	143%	117%	123%	122%
583-Madang Provincial Administration	119%	132%	116%	133%	115%	112%	120%
584-East Sepik Provincial Administration	143%	119%	145%	157%	125%	131%	131%
585-Sandaun Provincial Administration	120%	135%	123%	134%	123%	124%	113%
586-Manus Provincial Administration	122%	134%	99%	115%	104%	106%	110%
587-New Ireland Provincial Administration	116%	161%	151%	160%	135%	141%	120%
588-East New Britain Provincial Administration	117%	124%	118%	125%	118%	117%	120%
589-West New Britain Provincial Administration	111%	132%	116%	133%	116%	124%	118%
590-Autonomous Bougainville Administration	108%	139%	117%	128%	113%	111%	106%
591-Hela Provincial Administration	159%	119%	118%	120%	111%	115%	126%
592-Jiwaka Provincial Administration	165%	132%	117%	131%	127%	125%	116%
Total	126%	132%	125%	137%	119%	121%	119%

Source: World Bank staff calculations using data from the BOOST database (2017 – 2024).

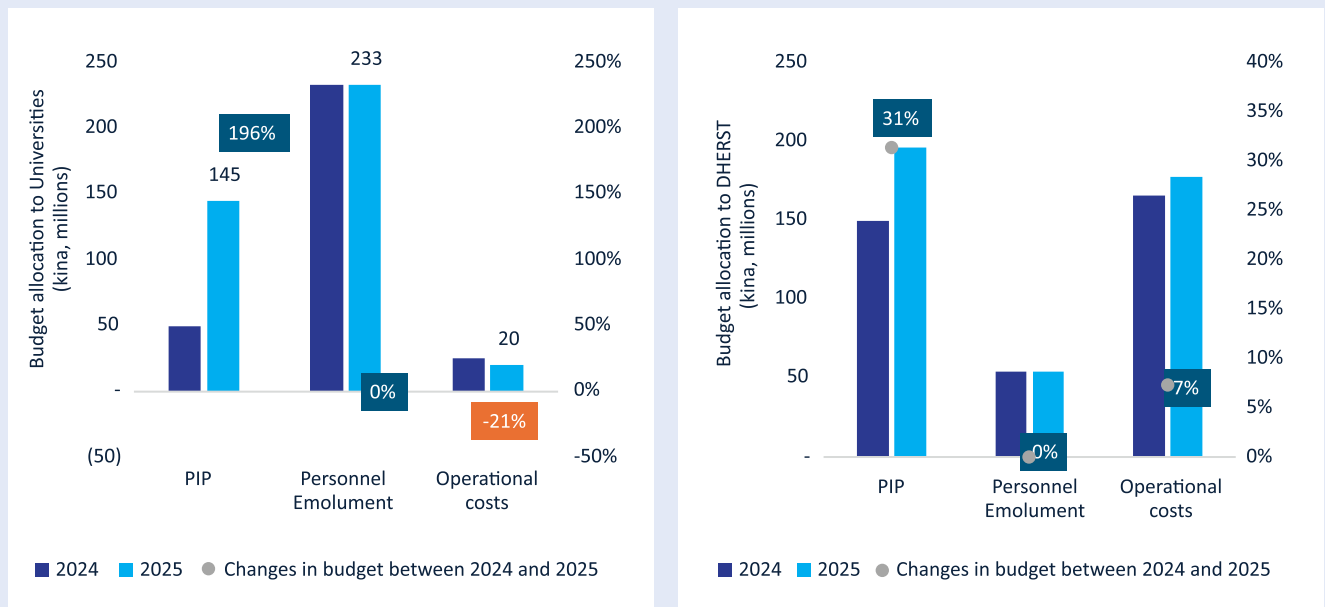
¹⁴ Every three years, the Teacher Services Commission and the Teachers' Association negotiate and agree on annual salary adjustments for the coming three years. These negotiations determine the teachers updated base salary and allowance rates, which are then applied uniformly to all teachers, regardless of individual performance.

3.2 Additional resources have also been allocated to public investment programs (PIPs). Whilst these investments are needed, budget execution rates for PIPs have historically been low.

Effective investment in education is critical for the sector’s development and for preparing the education system to meet growing future demand, particularly at the secondary and tertiary levels. In the 2025 budget, allocations for universities and DHERST increased by K91 million (US\$25 million) and K59 million (US\$16 million), respectively (see Figure 7). Most of this additional funding is directed toward PIPs focused on infrastructure development and refurbishment. The scale of funding increases varies across institutions, ranging from an 11 percent increase at the University of Papua New Guinea to 47 percent at the University of Goroka.

Figure 07

Both universities and DHERST have received additional funding for PIP projects, resulting in a nearly 200 percent increase (additional K91 million) in the PIP budget for universities and a 31 percent increase (additional K59 million) for DHERST.



Source: World Bank staff calculations using data from the BOOST database 2024 and Budget Book 2025.

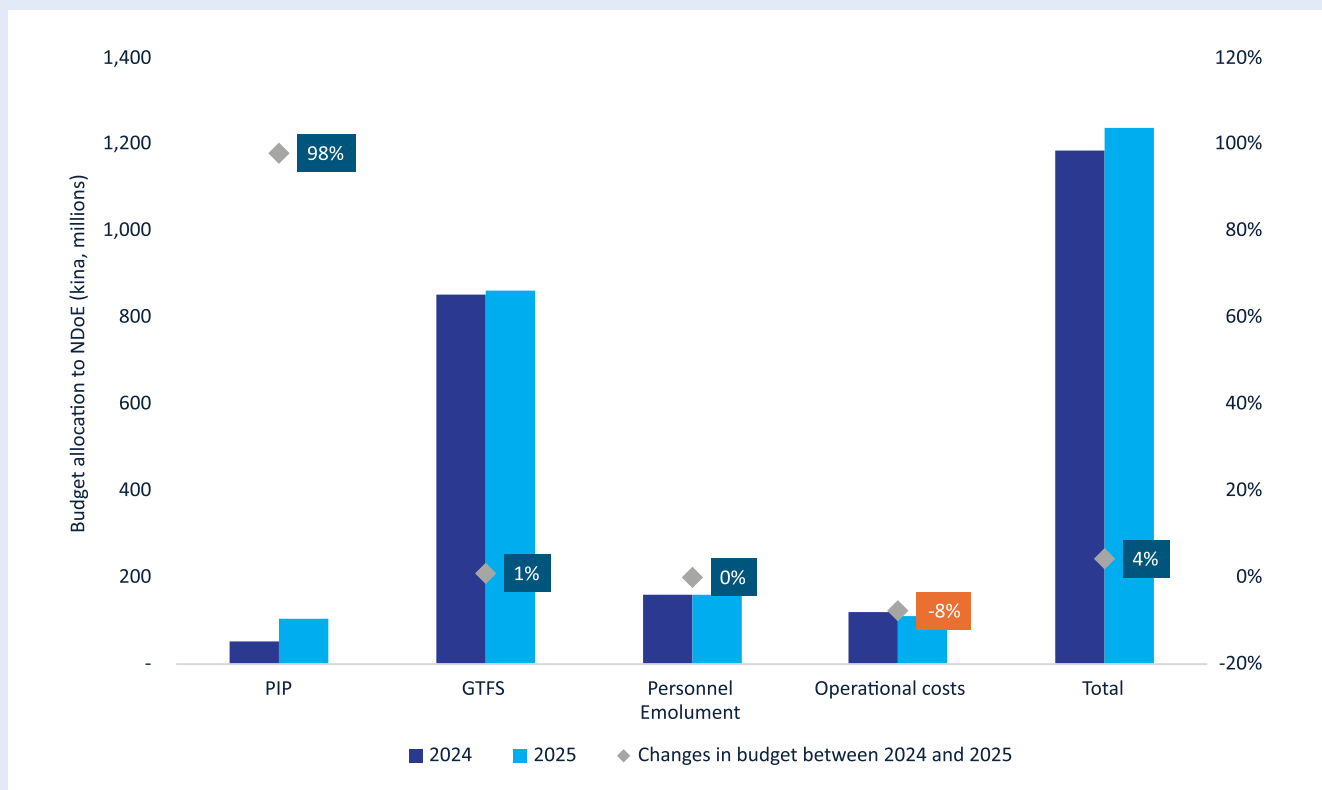
Note: PIP projects refer to projects funded by development funds, either from GoPNG or donor funds

Despite the urgent need for NDoE investments through PIPs, the historical underperformance in project execution raises concerns that the allocated 2025 budget may not be fully spent. In 2025, the NDoE’s PIP budget increased by 98 percent, equivalent to K52 million (US\$14.5 million) (see Figure 8), with most of the additional funding directed toward supporting national education reforms and the development of Schools of Excellence.¹⁵ However, past performance suggests significant constraints to effective execution. Over the last seven years, NDoE’s PIP budget execution rates have consistently lagged those of universities and DHERST.¹⁶

An initial assessment of budget execution constraints suggests that the poor performance of PIP activities may be tied to delayed cash disbursements, which slows down the implementation process. As of May 2025 (i.e. five months into the fiscal year), the NDoE had not received any PIP-related funding, whereas DHERST had received only 1 percent of its approved PIP allocation, according to IFMS data. These figures suggest that cash flow issues are a critical bottleneck to PIP execution. However, poor PIP performance requires further investigation (and more detailed data) to better understand the root causes to this issue and to identify solutions. However, if PIP budget execution constraints are not addressed, there is a significant risk that even increased PIP funding will remain underutilized, undermining efforts to improve education outcomes. More generally, the teacher salary budget overruns and poor PIP budget execution raise concerns about the Government’s capacity for planning, budgeting and delivering education services.

Figure 08

NDoE received an additional K52 million in 2025 with PIP programs being the main beneficiary of this increase, resulting in a 98 percent increase in the PIP budget allocation.



Source: World Bank staff calculations using data from the BOOST database 2024 and Budget Book 2025.

¹⁵ The School of Excellence includes the six National High Schools (NHS): Sogeri, Aiyura, Kerevat, Passam, Wawin, and Pom NHS.

¹⁶ 75 percent of PIP projects implemented by universities over the past seven years, spent at least half of their budgets, whereas this was true for 56 percent of DHERST projects and only 40 percent of NDoE projects.

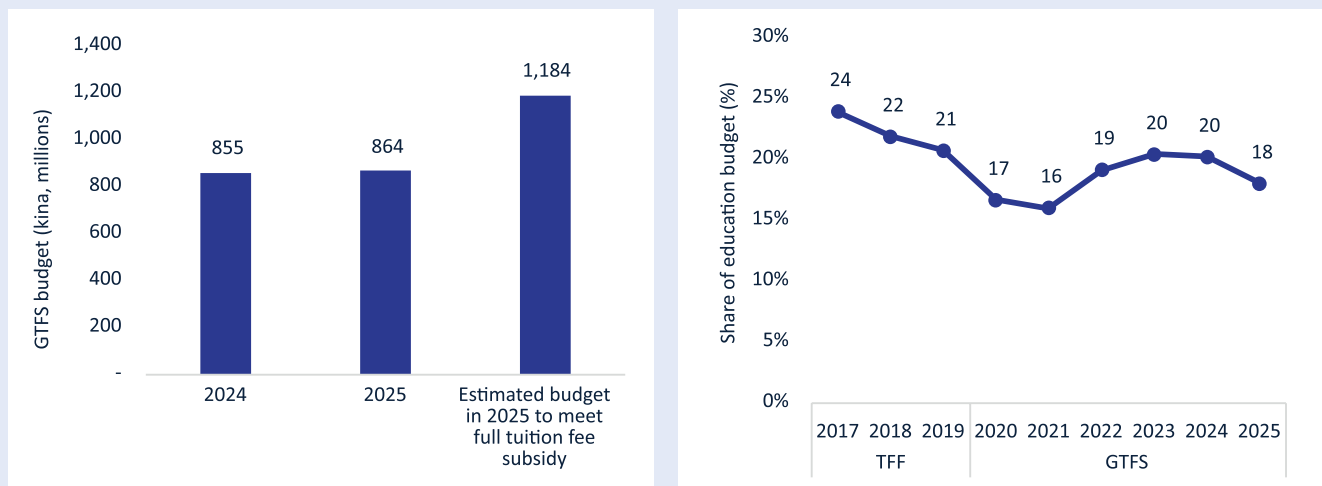
3.3 The 2025 budget allocated for school grants (GTFS) does not meet the policy goal of fully subsidizing the tuition fee, which creates uncertainty for school operations and risks adversely impacting student learning.

The school grants program is not funded at the level of the school grant policy’s commitment. In the 2025 budget, K864 million (US\$241 million) has been allocated to the GTFS (see Figure 9), a marginal increase of K9 million (US\$2.5 million), or just 1 percent, compared to 2024. The share of the education budget allocated to GTFS,¹⁷ 18 percent in 2025, has been progressively declining since 2017, when 24 percent of the education budget was allocated to GTFS. According to the NDoE, meeting the policy commitment of fully subsidizing tuition fees for basic education would require K1.2 billion (US\$330 million), meaning the 2025 GTFS budget covers only 73 percent of the estimated cost of the program. In addition, under the full tuition fee subsidy policy, schools are not allowed to collect additional fees, even when there is a funding gap to cover the operational costs. This persistent gap between policy commitments and actual funding creates uncertainty for essential school operations, including the provision of learning materials and maintenance of infrastructure, ultimately affecting the quality of the student learning environment.

Importantly however, the underfunding of the school grants program does not necessarily mean that the current level of funding is not adequate for financing school operations. A key challenge to assess the adequacy of school grant funding levels is that there is no reporting on school grant spending at the aggregate level. While the GTFS has clearly improved access to education, there is no data to assess that the current level of funding is adequate to finance school operations and support improvements in education quality. A thorough assessment of the GTFS subsidy rates and their adequacy is needed to ensure the funding is utilized effectively.

Figure 09

GTFS funding remains unchanged in 2025 despite the estimated need for K1.2 billion to meet the policy goal of fully subsidizing the tuition fee (left panel). The lack of growth in GTFS funding has led to a slight decline in its share of the total education budget (right panel).



Source: World Bank staff calculations using data from the BOOST database (2017 – 2024) and Budget Book 2025.

Note: TFF = tuition fee free policy; GTFS = government tuition fee subsidy policy

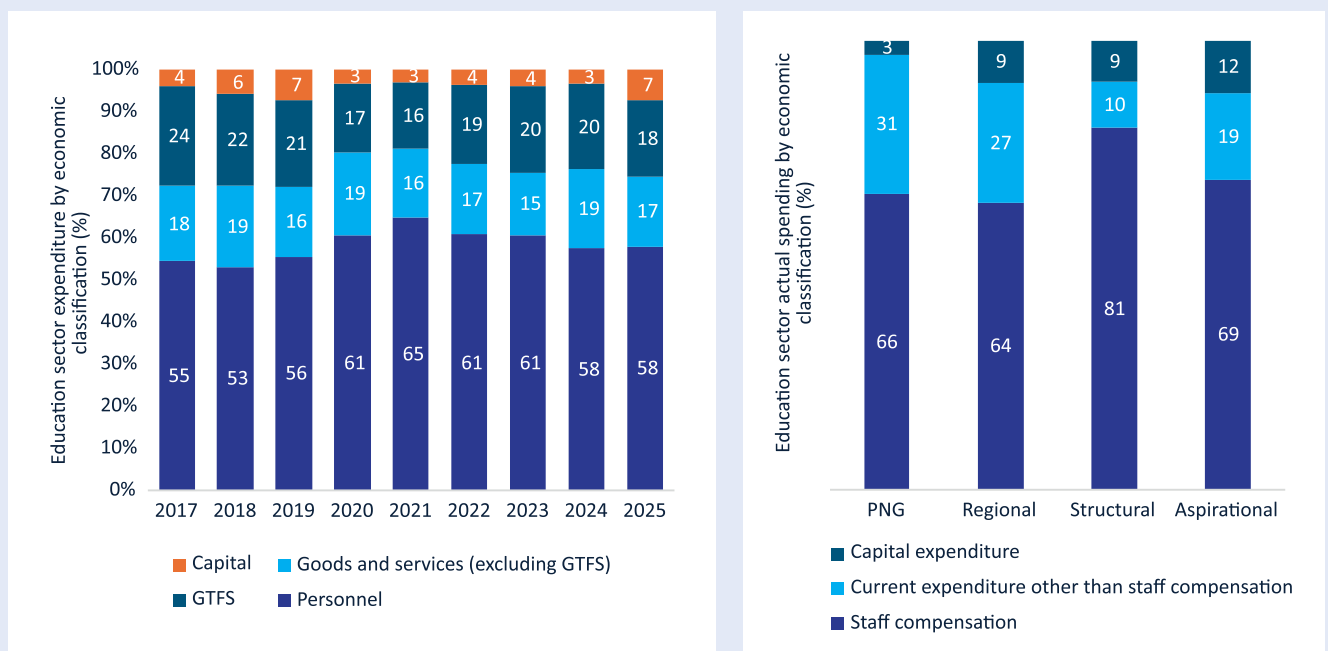
¹⁷ Data for 2020 and 2021, when school operations were affected by the COVID pandemic, are important outliers.

3.4 The composition of the education sector budget remains largely unchanged, with wages continuing to account for the largest share. However, the share allocated to capital investment has seen a slight increase in 2025.

The capital formation budget, as a share of the total education sector budget, increased in 2025 compared to previous years, while the share allocated to non-wage current expenditures declined slightly. The allocation for capital projects rose from 3 percent in 2024 to 7 percent in 2025. In contrast, the share for non-wage current expenditure (including GTFS), fell from 39 percent in 2024 to 35 percent in 2025. Wages account for 58 percent of the education budget in 2025, consistent with 2024 but lower than the peak of 65 percent in 2021 (see Figure 10). However, actual spending on salaries has historically exceeded the approved budget (see subsection 3.1), with salary expenditures averaging 66 percent of total education spending between 2015 and 2024. Even so, a 66 percent wage share in education spending falls within remains moderate compared to international benchmarks. This creates an opportunity to manage the teacher wage bill more sustainably, while also strengthening the education system through targeted investments in priority areas such as teacher professional development (TPD) and the provision of adequate learning materials.

Figure 10

The wage bill accounts for the largest share of the education sector budget, while the capital budget share doubled in 2025 due to strong investment in infrastructure (left panel). Average wage spending (actual spending 2015-2024) in PNG’s education sector exceeds budget but still falls within the typical range of wage spending of its aspirational and regional peers (right panel).



Source: World Bank staff calculations using data from the BOOST database (2017 – 2024) and Budget Book 2025. Peer countries: UNESCO Institute for Statistics.
 Note: GTFS = government tuition fee subsidy policy

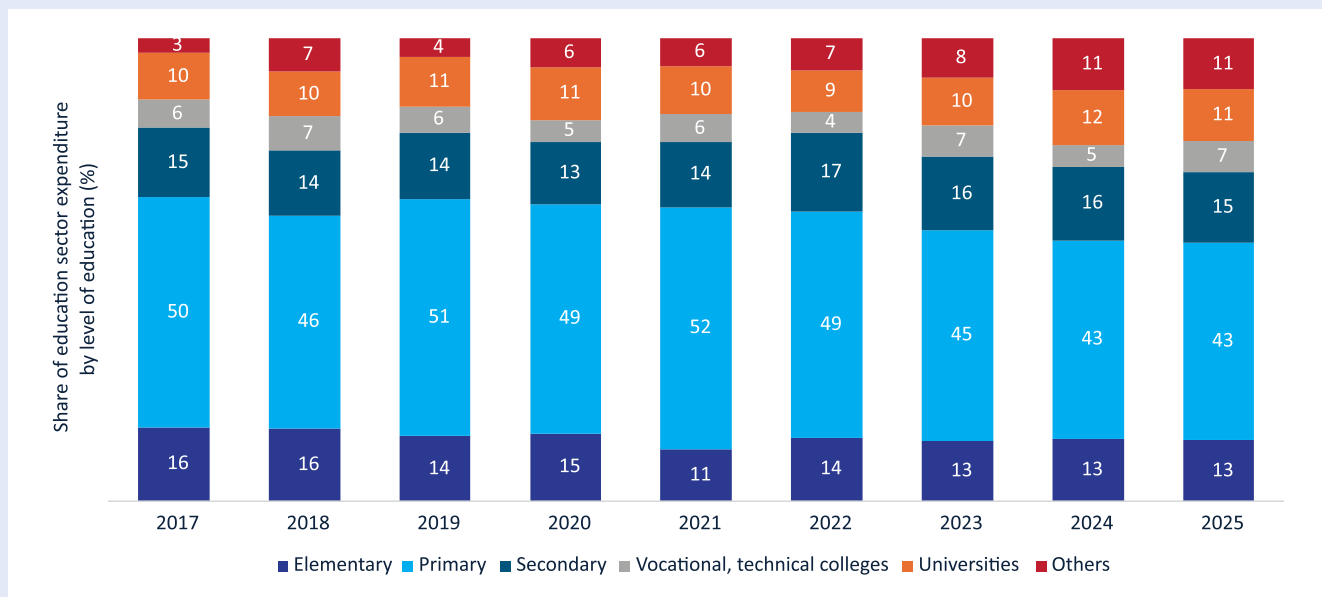
3.5 More than half of the education sector budget has been allocated to elementary and primary education, despite the GoPNG’s goal to promote higher enrollment rates in secondary education and TVET.

The 2025 education budget remains heavily focused on elementary and primary education (students aged 6 to 14), while investment in secondary education (students aged 15 to 18) has stagnated. More than half of the sector’s budget continues to be allocated to elementary and primary education (see, Figure 11), which is vital for addressing persistent issues in foundational education, such as low literacy rates and high student absenteeism. Elementary and primary students (enrolled in preparatory to grade 8) accounted for 88 percent of total student enrollment in 2021, according to EMIS data, whereas secondary students (enrolled in grades 9 to 12) accounted for only 10 percent.¹⁸

However, demand for additional infrastructure and qualified secondary education teachers is expected to rise sharply. PNG is currently transitioning from its 3-6-4 education system (elementary-primary-secondary) to a 1-6-6 system (prep-primary-secondary)¹⁹, aligned to international standards. And the National Education Plan (2020-2029) aims to increase net enrollment in secondary education to 60 percent by 2029 (compared to an estimated 22 percent net school attendance rate in the SDES 2022). Both developments will have a considerable impact on demand for secondary education infrastructure and human resources. However, according to the Teacher Service Commission (TSC), secondary teachers are required to have a master’s degree in education. Yet, fewer than 10 percent of the current secondary teacher workforce meets this benchmark. In light of these infrastructure and human resource constraints, increased investment in secondary education will be critical to ensure the system is adequately prepared to meet the country’s medium-term educational goals.

Figure 11

The relative distribution of the budget across different levels of the education sector has largely remained unchanged over the past decade, with more than half of the budget allocated to foundational education.



Source: World Bank staff calculations using data from the BOOST database (2017 – 2024) and Budget Book 2025.

Note: In the current 3-6-4 education system, Elementary refers to Elementary Prep to Grade 2, covering children aged 6 to 8.

¹⁸ 2021 EMIS data is the most recent official published data on student enrollment. The remaining 1.6 percent is enrolled in technical and vocational education and training.

¹⁹ In the new 1-6-6 system, Prep refers to preparatory that starts at age 6. Early childhood education, on the other hand, begins at ages 4 and 5 and serves as a foundation before Prep.

4. Is the sector investing in key components of the education system to ensure the provision of quality education services?

4.1 The teacher professional development program remains critically underfunded.

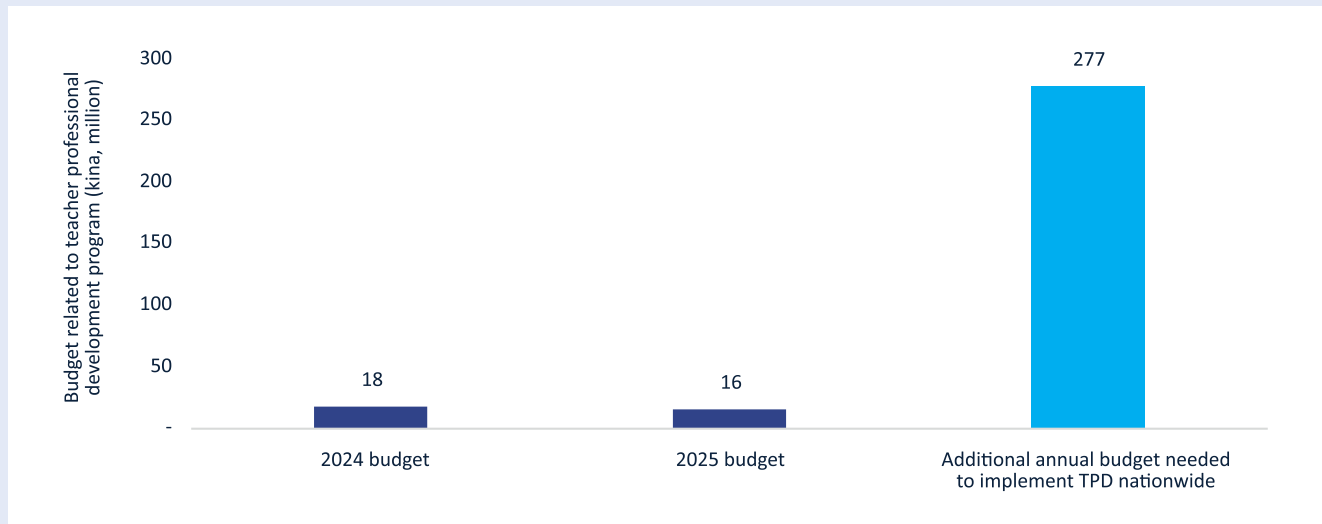
Investing in TPD is critical to improving learning outcomes in PNG, where many teachers do not meet the minimum education qualification standards. This challenge is particularly acute at the elementary and primary levels, where the majority of teachers possess only a high school diploma. This limits the quality of foundational education and hinders student learning outcomes. Implementing a comprehensive, nationwide TPD program that spans all levels of basic education is estimated to cost K277 million (US\$78 million) per year.²⁰ Despite the scale and urgency of the need, funding for TPD remains insufficient. The TPD budget has been reduced from K18 million (US\$5 million) in 2024 to K16 million (US\$4.5 million) in 2025 (see, Figure 12). The current allocation does not fund actual TPD activities but instead focuses on developing policies and implementation guidelines. This level of funding falls short of what is needed to meet the country's TPD requirements.

Current TPD initiatives, supported by development partners, provide a foundation for improving teacher skills. However, they need to be expanded and require long-term financing to assure their sustainability. The *Partnership in Education* program, funded by the Australian Government, supports a range of TPD activities, including in-service training, teacher learning circles, head teacher development, qualification upgrading, and the implementation of a comprehensive monitoring system. At present, these efforts are focused on teachers from preparatory to Grade 2 in four selected provinces. To enhance both reach and effectiveness, the NDoE should adopt a phased expansion strategy over the next three to five years, extending support to additional grades and provinces. To promote long-term sustainability, TPD delivery should leverage modern technology, such as online learning platforms and virtual learning circles, to improve accessibility while reducing implementation costs.

²⁰ The annual TPD programs include several key components: annual in-service training for teachers across all education levels (K130 million), Teacher Learning Cycle (TLC) in-service training (K19 million), head teacher training (K29 million), upgrading teacher qualifications (K48 million), provision of school resources (K21 million), and a monitoring system (K30 million). The unit costs used in estimating these TPD programs are based on the current spending of TPD programs implemented under the PIE initiative.

Figure 12

Despite the large investment needs for TPD to improve the learning outcomes, budget allocated to TPD related programs reduced from K18 to K16 million in 2025.



Source: World Bank staff calculations using data from the BOOST database 2024, the Budget Book 2025, and the 2024 Education Budget Brief.

4.2 Student textbooks and other essential learning materials remain critically underfunded.

A shortage of textbooks in PNG is impeding student learning; however, GoPNG funding for textbook procurement has declined. Currently, only one-in-six students has access to numeracy textbooks, and just one-in-ten to literacy textbooks. This shortage is exacerbated by reduced funding, with the budget for basic learning materials decreasing from K44 million (US\$12.3 million) in 2024 to K29 million (US\$8.1 million) in 2025 (see, Figure 13). The current funding is primarily used for printing and distribution of syllabuses. An additional K192 million (US\$53.6 million) is required annually to procure textbooks for all students (grades 1 to 12).^{21, 22}

²¹ The cost of providing one textbook per student is estimated based on the following assumptions:

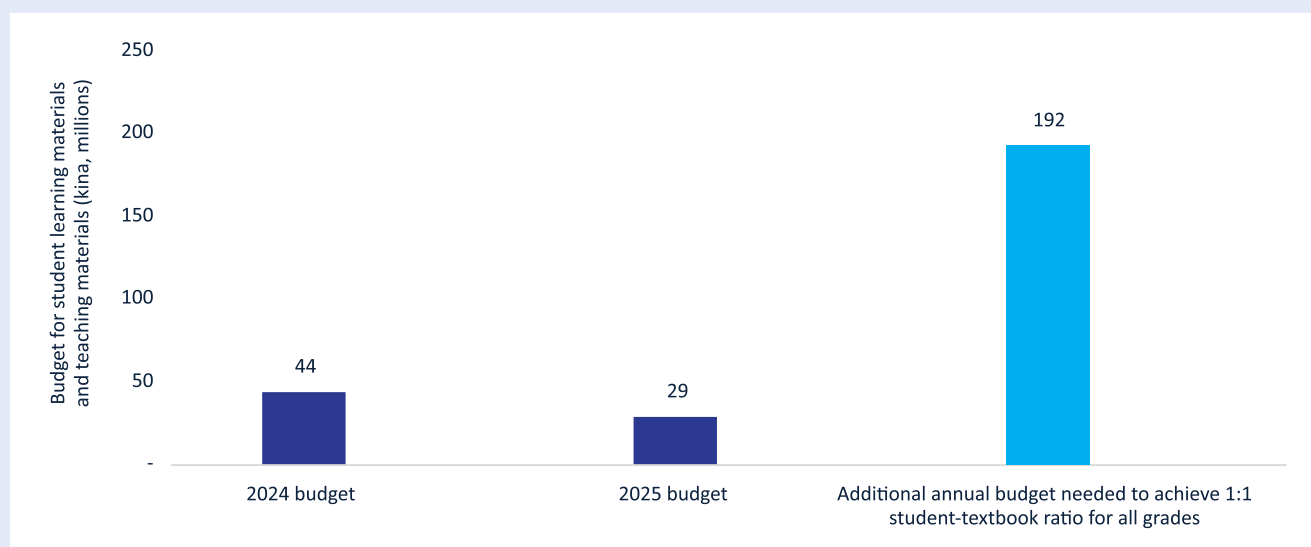
(i) the estimate covers all subjects across all grades; (ii) unit costs are based on the list of recommended textbooks provided by the NDoE; (iii) it is assumed that 80 percent of students in Grades 3 to 6 have access to mathematics and science textbooks; (iv) no textbooks are available at schools for other grades and subjects; (v) a 25 percent bulk discount is applied to textbook prices; and (vi) an additional 15 percent of the textbook cost is included to account for distribution expenses.

²² Assuming a 5-year depreciation cycle for textbooks, meaning each year 20 percent of the total required textbooks needs to be procured. The total costs for procuring textbooks to all student (grades 1 to 12) education is estimated at K962 million (US\$267 million); World Bank staff estimate, see: PNG Education Budget Brief 2024.

The funding shortfall leaves most students without the materials necessary for learning. Donor-funded programs have helped alleviate the shortage through textbook distribution, but external financing is typically unsustainable. PNG's textbook supply largely depends on donor support, particularly from the Japanese government, which funds the development, printing, and distribution of Mathematics and Science textbooks for Preparatory to Grade 4. However, this support does not cover all subjects or grades. For other subjects and grades, schools primarily rely on expensive commercial textbooks, making universal access unattainable. The current budget allocation is only sufficient for distributing course syllabi and teacher guides, but not adequate to fund the provision for student textbooks. While donor assistance improves short-term access for some students, it does not guarantee long-term sustainable financing.

Figure 13

The budget for student learning materials will decrease from K44 million to K29 million in 2025, despite an estimated additional K192 million (equivalent to 20% of the total cost) being required annually to provide textbooks for all students.



Source: World Bank staff calculations using data from the BOOST 2024, the Budget Book 2025, and the Education Budget Brief 2024.

Note: The annual cost of K192 million for textbooks assumes a five-year phased rollout across grade levels, a five-year textbook lifespan, and full coverage of all subjects and all grades (preparatory to grade 12).

To ensure students have the resources they need to continue learning, NDoE should prioritize the provision of relevant textbooks across all grades and subjects. In the long term, NDoE should focus on developing national textbooks, collaborating with commercial writers, and building local capacity by training NDoE staff to produce educational materials tailored to PNG students. This would reduce textbook development costs in the long-term and support a more sustainable and equitable system for textbook access nationwide.

4.3 The 2025 education sector budget did not allocate the maintenance and sanitation infrastructure funding required to address infrastructure constraints that are currently impeding student learning outcomes.

The 2025 education sector budget allocates K354 million (US\$99 million) for capital investments – more than double the K148 million (US\$41 million) allocated in 2024.²³ However, despite this increase, the physical learning environment for basic education is expected to continue deteriorating, as the budget for maintenance and sanitation infrastructure remains insufficient to meet the needs of existing school infrastructure. The 2025 capital funding is primarily directed toward expanding tertiary education facilities – through both rehabilitation and new construction – and supporting the 1-6-6 restructuring of the education system. However, it does not adequately fund the sanitation infrastructure and maintenance needs of existing education facilities. Currently, two-thirds of basic education schools nationwide need repairs, with many still lacking essential amenities. For instance, 64 percent of primary students attend schools without gender-separated toilets.²⁴

Addressing these maintenance and sanitation infrastructure needs (that is, repairing two-thirds of existing schools and providing gender-separated toilets), would require an estimated K1.3 billion (US\$0.36 billion) in total, or K261 million (US\$73 million) annually if spread over five years.²⁵ This amount represents an increase of approximately 75 percent over the 2025 total capital budget (which mostly prioritizes new infrastructure and maintenance for tertiary education)(see, Figure 14).²⁶ Provincial, district and local governments are the primarily responsible agencies the periodic maintenance of school facilities and ensuring sanitation facilities are adequate.²⁷ Funding for repairs and the construction of sanitation facilities could be sourced from the Provincial and District Service Improvement Program (SIP) which mandates that 20 percent of allocations be spent on education. In 2024, a total of K1.1 billion (US\$ 316 million) was spent through SIP; however, there is no clear evidence that the required 20 percent – approximately K227 million (US\$ 63 million) – was directed toward education infrastructure. In addition, better monitoring of school grant (GTFS) spending is required, to understand if schools are spending an appropriate share of the grants on routine maintenance. The poor condition of school facilities suggests an urgent need for the NDoE, in collaboration with provincial governments and schools, to develop a five-year financing plan to address infrastructure maintenance. Without stronger collaboration between national and provincial governments to prioritize the maintenance and upgrading of existing infrastructure in basic education, these challenges will persist and continue to hinder learning outcomes.

²³ This capital budget excludes the Provincial and District Services Improvement Program grants and excludes any maintenance funding included in the school grants.

²⁴ Based on analysis of 2019 School Census Data, the most recent detailed data available.

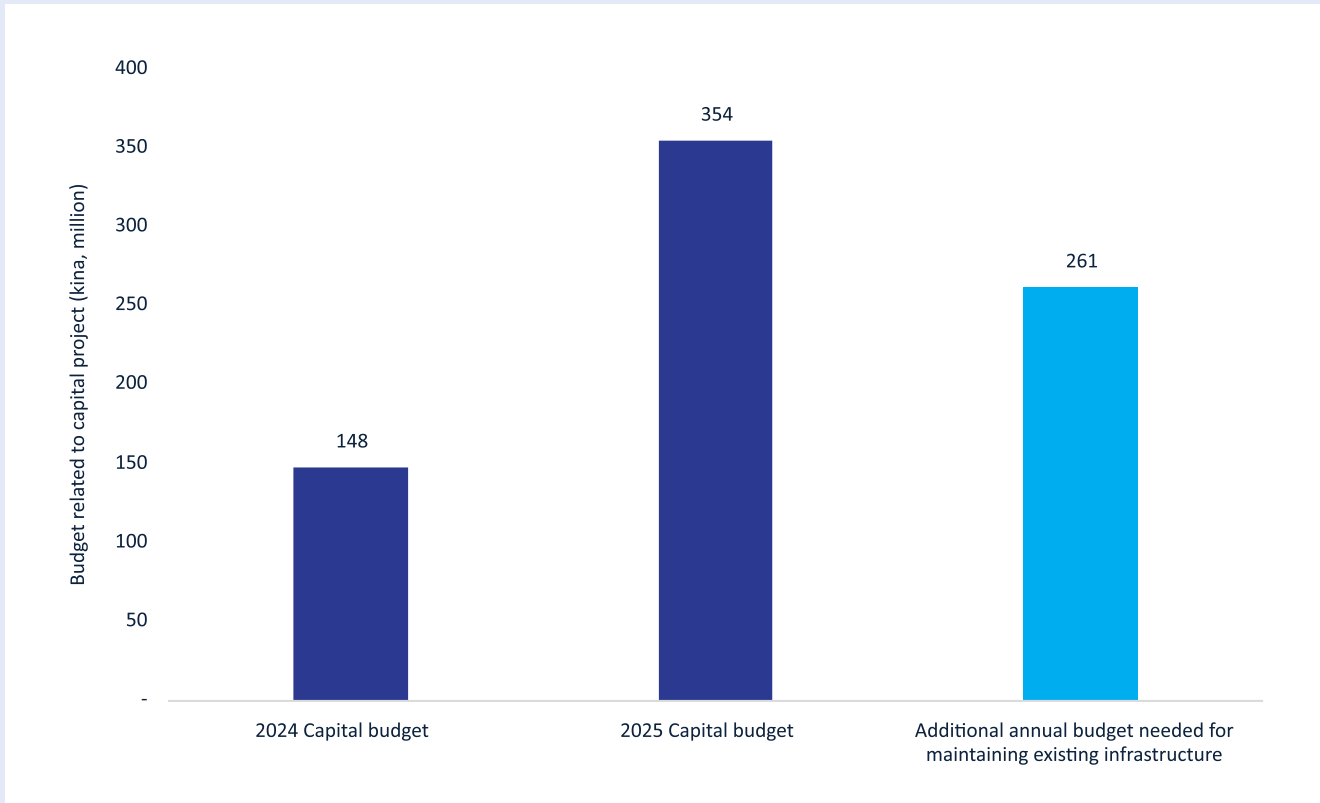
²⁵ This cost estimate includes major repairs to classrooms (32 percent of schools), minor maintenance (35 percent of schools), and the construction of gender-segregated toilets (65 percent of schools). See the annex of the 2024 Budget Brief for detailed assumptions used in the estimation.

²⁶ World Bank staff estimate prepared for the 2024 Budget Brief.

²⁷ Whereas school are expected to use school grants to fund routine maintenance.

Figure 14

Despite more than doubling in 2025, the capital infrastructure budget does not cover the critical maintenance needs of basic education, which require an additional K261 million (US\$73 million) annually over the next five years.



Source: World Bank staff calculations using data from the BOOST database 2024, the Budget Book 2025, and 2024 Education Budget Brief.

Note: 2025 capital budget primarily directed toward expanding tertiary education facilities – through both rehabilitation and new construction – and supporting the 1-6-6 restructuring of basic education.

5. How should PNG prioritize education resources to improve student learning outcomes?

5.1 Prioritize investments in education quality and focus on addressing the impediments to learning outcomes identified through learning assessment surveys.

Efficient allocation of resources in the education sector is essential to maximize the economic and social benefits of education spending, particularly when budgets are constrained. Considering the limited resources available to improve learning outcomes for PNG’s children, it is key to adopt an evidence-based approach to addressing impediments to student learning. At present, however, most of the additional resources allocated to the education sector are absorbed by teacher salaries, leaving little room for expanding access to ECE or investments critical to improving learning outcomes, such as TPD, student learning materials and infrastructure. Stricter controls on the wage bill are required (see subsection 5.3) to ensure that additional resources can be used to address learning constraints.

TPD (specifically training in the use of structured lesson plans) has proven to be a highly cost-effective intervention in a large variety of contexts²⁸ including in PNG, and a comprehensive TPD program would cost an estimated K277 million (US\$ 77 million) annually – K261 million (US\$ 73 million) more than the 2025 budget allocation for TPD. This cost-estimate assumes all teachers require in-service training, 90 percent require qualification upgrades, and the program would be implemented over a three-year period.²⁹ The Reader Booster Programme, implemented in PNG, demonstrated that training teachers to use scripted lesson plans is both feasible and highly cost-effective, with a benefit-cost ratio of 5:1 – meaning that every kina invested yields five times its value in future student earnings.³⁰ A similar program in Tonga showed even greater returns, with a benefit-cost ratio of 12:1.³¹

Providing adequate student learning materials, particularly textbooks, is critical to ensuring students do not fall behind. An additional K192 million (US\$53.6 million) is required annually to provide textbooks for all students. Data from PILNA 2021 show that students with access to their own language textbooks – or those sharing with only one other student – were about half a year ahead in reading and math compared to those without access. While developing national textbooks is vital for long-term investment, immediate funding is also necessary to prevent students from missing out on learning opportunities.

Addressing school infrastructure maintenance and sanitation needs, will enhance student learning and reduce dropout rates, and requires an annual investment of K261 million (US\$ 73 million) over five years. Schools with adequate infrastructure, including clean, gender-separated toilets, significantly improve student learning, improving reading by up to six months, math by four months, and writing by three months.³² Improved sanitation facilities also reduce dropout rates, as better conditions encourage more children to stay in school, according to household surveys.³³

²⁸ Akyeampong et al. (2023). 2023 cost-effective approaches to improve global learning – what does recent evidence tell us are “Smart buys” for improving learning in low- and middle-income countries? FCDO, the World Bank, UNICEF, and USAID.

²⁹ Currently, there is almost no in-service training provided, and approximately 90 percent of teachers in the system require education qualification upgrades. The estimate assumes that all teachers in the system need annual in-service training, and the number of qualification upgrades is determined by the number of teachers currently lacking the required qualifications. The annualized cost of the TPD program assumes a three-year implementation period, and includes in-service training, teacher learning circle training, head teacher training, qualification upgrading, and a robust monitoring system. Of this total, in-service training alone is estimated to cost K130 million (US\$ 32.5 million) annually. The estimate is based on a traditional TPD delivery modality (teachers will travel to the provincial level, resulting in significant recurring costs) and does not consider potential cost savings through digital delivery of TPD. The integration of technology could potentially reduce travel-related expenses, however, the absence of unit cost data for implementing such measures prevents accurate forecasts of costs of TPD delivery with the use of technology.

³⁰ World Bank staff estimates based on Macdonald and Vu (2018)

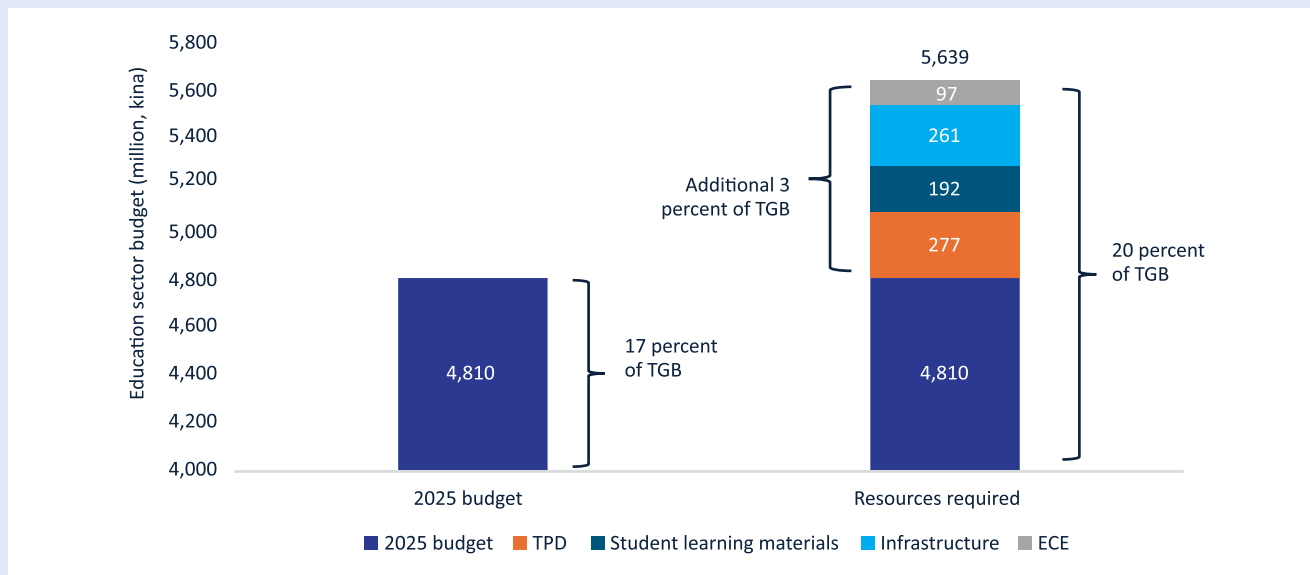
³¹ Afkar et al. (2023). Fixing the Foundation: Teachers and Basic Education in East Asia and Pacific, World Bank.

³² Papua New Guinea, Pacific Islands Literacy & Numeracy Assessment (PILNA) 2021

³³ Papua New Guinea, Demographic Health Survey 2016 and Papua New Guinea, Socio-Demographic and Economic Survey 2022.

Figure 15

Investment in key areas of education will require funding equivalent to around 20 percent of total government budget (TGB).



Source: World Bank staff estimates, based on Budget Brief 2024 data.

Moreover, investments are required to expand access to ECE. In 2020 the GoPNG committed to integrating ECE into the national education system, however as of May 2025, government-provided ECE services have yet to be delivered at scale. ECE budget allocations remain below one percent of the estimated annualized costs needed to fully fund the program.³⁴ The disparity between policy commitments and actual funding has created significant challenges for the nationwide rollout of the ECE program. Cost estimates of the ECE program vary based on assumptions, however, the recurrent cost (teacher salaries and school grant) are estimated at K97 million for 2024 if the National Education Plan (2020-2029) targets would have been met.

These investments will enhance student learning outcomes but will also require a significant increase in education funding levels. Over the first three years, targeted investments in TPD, learning materials, and improving school infrastructure would require an estimated additional 3 percent of the total government budget annually, or about 0.6 percent of GDP. The new education sector budget estimate – including these critical investments in the existing 2025 education budget – would reach 20 percent of the total government budget (see Figure 15), or 4.1 percent of GDP. This level of funding is not unprecedented, considering that in 2013, the education budget already accounted for 19 percent of the total government budget. However, the GoPNG will also need to critically review its capacity to absorb additional funding for the education sector as the budget and spending analysis raised concerns on its capacity to plan, budget and deliver education services.

Prioritizing cost-effective, high-impact interventions such as TPD, alongside meeting fundamental needs – including textbooks and school infrastructure – **will enable the country to ensure that every kina invested delivers meaningful improvements in learning outcomes and long-term national development.** Conversely, continued underfunding of critical components risks long-term stagnation of education sector outcomes. Considerable spending on the teacher salaries - paying teachers to stand in front of the class - without adequate training and without student textbooks risks declining returns on investments.

³⁴ See: Papua New Guinea Public Finance Review 2025. World Bank (2025) forthcoming publication.

5.2 Increase equity and efficiency of education spending to promote sector outcomes.

Whilst increasing education funding is critical for improving learning outcomes, spending equity must be strengthened as well. Education spending is not distributed equitably across PNG's provinces. Per-student spending is lower in poorer provinces ($r = 0.74$), lower in provinces with lower attendance rates ($r = 0.52$) and lower in provinces with poorer learning outcomes ($r = 0.40$), suggesting that education spending is aggravating human capital development inequalities.³⁵ Per-student spending is significantly correlated with student-teacher ratios across provinces, indicating that disparities in spending are largely driven by unequal allocations of teaching staff. This suggests that promoting a more equitable distribution of teachers could lead to substantial gains in educational equity. However, a more in-depth analysis of the underlying causes of these spending disparities is needed to determine whether they stem from inadequate planning and budgeting processes or reflect local human resource constraints that may require more tailored interventions. Another instrument to promote equity could be the school grants policy. By lowering out-of-pocket expenditures for attending school (i.e. by subsidizing school fees), the school grant policy has likely promoted access to education for children from low-income households. However, the policy does not promote gender equity and did not include an equity component for remote schools (until 2024).

In addition, the efficiency of existing education spending needs to be increased to strengthen education sector outcomes. Efficiency analysis of education spending, comparing PNG's education sector outputs and outcomes to other countries (while keeping spending constant), suggests considerable gains could be made in PNG by promoting spending efficiency.³⁶ The 2023 Budget Brief discussed several potential areas to improve efficiency based on data collected through surveys. For example, a Partnership in Education baseline survey in 2022 found that, on average, 21 percent of teachers are absent on any given day. As teacher salaries account for over half of total education spending, reducing teacher absenteeism would potentially improve sector outcomes and raise efficiency of education spending. Other areas include improving teacher training and support for teachers, and reducing teacher turn-over, as well as reducing student drop-out rates, and improving transparency of school grant spending (by improving the school grant acquittal compliance rate).³⁷

³⁵ Analysis based on BOOST data (actual spending 2022), EMIS data (student enrollment by province 2021) DHS 2016-18 data on poverty and out-of-school rates; and PILNA data on learning outcomes (2015).

³⁶ See Papua New Guinea Public Finance Review 2025. World Bank (2025). Forthcoming publication.

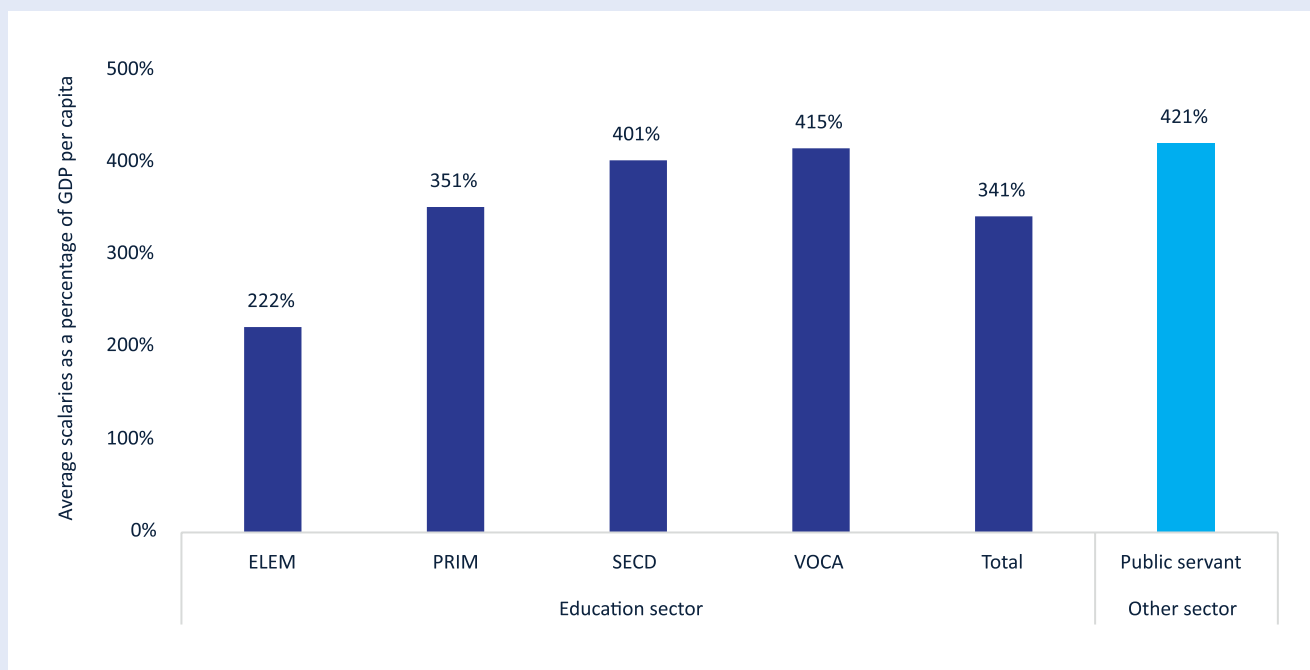
³⁷ See Papua New Guinea Education Budget Brief 2023. World Bank (2023).

5.3 Strengthen controls on teacher wage bill spending and focus future teacher compensation adjustments on teacher effort and performance, as unconditional salary increases do not tend to lead to better learning outcomes.

Future teacher payrate adjustments should focus on addressing teacher absenteeism and improve teacher motivation and accountability. Teacher payrates in PNG are relatively competitive and increasing pay, *without reforms aimed at improving qualifications, effort, and performance*, is unlikely to enhance learning outcomes. On average, teachers in PNG earn an estimated K36,000 (US\$ 10,000) per year, or the equivalent of 3.4 times GDP per capita. Estimates range from 2.2 times GDP per capita for elementary teachers to over 4.0 times for secondary teachers (see Figure 16). Teacher salaries are reviewed and negotiated every three years, helping to ensure that teachers are adequately compensated over time. This level of pay is consistent with UNESCO’s prescriptive benchmark on ‘a reasonable level for an average teacher’s salary’ (3.5 times GDP per capita) and falls within the range observed across middle-income countries (2 to 5 times GDP per capita).³⁸

Figure 16

Teachers in PNG earn an average salary of 3.4 times the per capita GDP, with elementary teachers earning 2.2 times and secondary teachers earning over 4 times the per capita GDP.



Source: World Bank staff calculations using 2024 Payroll data for teacher salaries and the General Public Servant Pay Scale of PNG in 2024.

³⁸ See: *Teachers’ pay and conditions: an assessment of recent trends in Africa. Background paper prepared for the Education for All Global Monitoring Report 2005 The Quality Imperative*. UNESCO (2004); and Sandefur, J. (2018). *Chart of the Week: Teacher Pay around the World: Beyond ‘Disruption’ and ‘De-Skilling.’ Center for Global Development | Ideas to Action. Teacher pay is typically higher (in relative terms to GDP per capita) in countries with high learning poverty rates, where competitive pay is used to attract and retain teachers.*

Recent experimental evidence from Indonesia has shown that unconditional pay increases for teachers do not lead to better student learning outcomes and are unlikely to be an effective policy option for improving the effort and productivity of existing teachers. In a large-scale randomized experiment across a representative sample of Indonesian schools, a permanent doubling of teacher base salaries was accelerated for teachers in the ‘treatment’ schools. The experiment found that the large pay increase significantly improved teachers' satisfaction with their income, reduced the incidence of teachers holding outside jobs, and reduced self-reported financial stress. However, it did not improve student learning outcomes after three years.³⁹ Similarly, a recent study in Cambodia on teacher quality in primary education found that a considerable increase in teacher salaries – which more than tripled over seven years – did not result in significant improvements in student learning. Although higher salaries attracted higher scoring high school graduates into the teacher workforce, it did not reduce the incidence of teachers holding outside jobs, change teacher practices inside the classroom or markedly improve performance on a teacher math test.⁴⁰

Merit-based pay, such as salary increases or bonuses tied to performance, can positively affect learning outcomes if structured correctly and combined with improvements in the learning environment. In PNG, teacher salaries are based on educational qualifications and years of experience, and ‘upgrading educational qualifications’ is often perceived as the only viable route to increase one’s payrate.⁴¹ However, these factors alone do not guarantee effective teaching or improved student performance. While qualifications are important, they often do not adequately prepare teachers for the complexities of classroom teaching, and years of experience have limited impact on learning outcomes if teachers are not regularly trained or are teaching poorly. Or it could focus on incentivizing student performance. Chile's education reforms in the 1990s, which included rewarding schools and teachers for outperforming others on national exams, demonstrated that performance-based incentives can motivate teachers and improve student performance. When merit pay is combined with efforts to enhance teaching quality and the overall learning environment, it can lead to meaningful improvements in both teacher motivation and student outcomes.⁴² However, the evidence on performance-based pay for teachers is mixed, and the conditions in PNG may be suboptimal for implementing such a framework effectively. As an alternative, pay adjustments could be strategically targeted to address the country's very high rates of teacher absenteeism.

PNG should strengthen controls on teacher wage bill spending, as overruns are creating arrears and forcing the sector to prioritize salaries, while unconditional salary increases tend not to be a cost-effective measure to improve student learning. The across-the-board salary increases currently applied in PNG, and similar to those applied in Indonesia and Cambodia, are not linked to effort or performance, and such unconditional pay increases do not guarantee better learning outcomes. Without strategic reforms in teacher training and textbook distribution, increased salaries alone risk increasing budget rigidity and limiting resources available for investments in better learning outcomes.

³⁹ De Ree, J., Muralidharan, K., Pradhan, M. and Rogers, H. (2017). Double for nothing? Experimental evidence on an unconditional teacher salary increase in Indonesia, page 1.

⁴⁰ World Bank (2025). Teacher Quality in Cambodia's Primary Education: Towards Incentivizing Effort, Performance and Quality Assurance.

⁴¹ The emphasis on teacher educational qualifications in PNG appears to be the result of a widely held belief among education sector stakeholders that upgrading qualifications—and linking pay to those qualifications—will lead to improved learning outcomes. This belief is reflected in the national budget: there is no dedicated allocation for annual in-service training, while a small portion of funding is consistently set aside each year for qualification upgrades.

⁴² Breeding, Mary, Tara Bêteille, and David K. Evans. Teacher Pay-for-Performance: What Works? Where? And How? World Bank Group, 2021; Bêteille, Tara, and David K. Evans. Successful Teachers, Successful Students: Recruiting and Supporting Society's Most Crucial Profession. World Bank Group, 2019.

5.4 Adopt modern technologies to streamline data management, track sector performance, and overcome the challenges posed by PNG's geographical diversity.

PNG needs to embrace modern technology to improve education sector management, particularly in the areas of data management and TPD. Currently, many critical functions in PNG's education sector are performed manually (e.g. paper based) and suffer from poor compliance and response rates from schools.⁴³ Moreover, data and administrative processes often operate in silos (they are not effectively integrated), and are often not applied nationwide. For instance, the number of teachers in the workforce varies widely across systems and is not integrated. The Payroll Division under NDoE manages the teacher Master Position Register (MPR), which is intended to serve as the definitive record of the teacher workforce. However, due to fragmented administrative system such as recruitment done by provinces and registration done by the TSC, the MPR is not a reliable representation of the actual number of teachers. This creates major challenges in budgeting for teacher salaries, as discrepancies in the MPR data often lead to mismatches between salary allocations and actual staffing needs. Another example is the lack of reliable data on student enrollment - which is critical for GTFS funding - and on school conditions, essential for monitoring the physical learning environment. This information is collected through school censuses, but response rates are low. Data collection is paper-based and manually digitized at the central level, resulting in delays in processing and risks of data loss.

By streamlining data related to student numbers, enrollment rates, and the current teacher workforce, PNG could more effectively monitor progress and enable a more efficient and timely allocation of resources. This would help ensure that resources are distributed to where they are most needed, thereby improving overall educational outcomes. Additionally, PNG should consider adopting digital platforms for TPD, to address the challenges of geographical diversity and limited access to TPD in rural areas. Delivering in-person training to remote areas is costly and logistically challenging, but digital learning can provide a more cost-effective and sustainable solution. This would help ensure that teachers in both urban and rural areas have equal access to professional development opportunities, reduce long-term training costs, and support the sustainability of TPD programs.

⁴³ For example, the EMIS annual school census is distributed in paper format from provincial offices, requiring school principals to report key information, such as student enrollment, teacher numbers, and school conditions, by hand. The response rate of the paper-based survey is only around 60 percent, causing the sector to miss out on vital data necessary for effective planning and growth.



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