



Papua New Guinea Economic Update

Unlocking the Economic Benefits of Gender Equality

March 2023



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PAPUA NEW GUINEA ECONOMIC UPDATE

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Preface and Acknowledgments

This publication is the eighth in the current series of Papua New Guinea Economic Updates (*PNG EU*). It has two principal aims. First, it analyzes the key recent developments in Papua New Guinea's economy and places these in a longer-term and global context. Based on these developments and recent policy changes, the *PNG EU* updates the outlook for the country's economy and the welfare of its citizens. Second, the *PNG EU* provides an in-depth examination of a selected development issue and evaluates the implications of recent trends and policy reforms in terms of the government's stated development objectives. It is intended for a broad audience, including policy makers, business leaders, and the community of analysts and professionals engaged in Papua New Guinea's evolving economy.

The *PNG EU* was prepared by the Macroeconomics, Trade and Investment Global Practice, under the guidance of Stephen N. Ndegwa (Country Director), Lars Christian Moller (Practice Manager), Jane Sprouster (Acting Country Manager), Khwima Nthara (Country Manager) and Ingo Wiederhofer (Practice Manager). The core economic team comprises Ruslan Piontkivsky, Rashad Hasanov, and Rubayat Chowdhury, with contributions from Virginia Horscroft. The special focus section was prepared by Giorgia Demarchi and Dimitria Gavalyugova with contributions from Alice Calder, Uzma Quresh, Caroline Mary Sage and Tessa Walsh. Michelle Lee and Rachel Leka provided administrative support. Dissemination is organized by Tom Perry and Ruth Moiam.

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The *PNG EU* is to be launched on March 30, 2023. Since the *PNG EU* is going to be released earlier than the EAP Update, updated regional outlook numbers are not reported, but the trends are discussed.

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EXECUTIVE SUMMARY

Economic Update and Special Focus

A. Economic Update: PNG Continues Benefiting from High Commodity Prices

High commodity prices and the removal of COVID-19 restrictions spurred economic recovery in 2022. Following a sharp contraction in 2020, the economy is estimated to have inched up by 0.1 percent in 2021, before accelerating to 4.5 percent in 2022. The significant improvement in international prices of key export commodities fuelled growth in the extractive sector, after two consecutive years of decline. Employment increased 3.2 percent year-on-year in 2022Q2, the highest rate since 2019Q2, with the construction sector posting the sharpest increase, underpinning the recovery of demand.

The government continued with fiscal consolidation to safeguard macroeconomic stability. The fiscal deficit is estimated to have narrowed to 5.4 percent of GDP in 2022 from 6.8 percent of GDP in 2021. However, most of the improvement came from resource revenue that increased four-fold in nominal terms. Meanwhile, the non-resource primary balance (a better measure of the underlying fiscal position unaffected by volatile resource revenue) has widened. According to the latest World Bank–IMF DSA, the country remains at high risk of debt distress. Conditional on the implementation of the authorities’ plans for further fiscal consolidation and conservative financing strategies, external and overall public debt is sustainable.

Higher commodity prices contributed to higher inflation and stronger external balances. Headline inflation remains elevated reaching 6.3 percent in 2022Q3. Core inflation, which excludes volatile energy and food prices, was 5.0 percent. Since July 2022, the Bank of PNG raised the policy rate by cumulative 50 basis points to 3.5 percent, recognizing the need to contain inflationary pressures. Driven by high commodity prices (especially oil and LNG), the external current account surplus is estimated to have reached new record of over 30 percent of GDP in 2022. International reserves covered about eleven months of imports as of end 2022.

Table 1: Key Macro-Fiscal Indicators (2018–25)

Indicator	2018	2019	2020	2021	2022	2023	2024	2025
					Est.	Projections		
GDP growth (percent)	-0.3	4.5	-3.2	0.1	4.5	3.7	4.4	3.1
Extractive sector	-9.2	11.3	-9.2	-11.0	4.7	0.3	5.1	0.1
Non-extractive economy	4.1	1.6	-0.4	4.8	4.5	4.9	4.2	4.2
Consumer price inflation (percent, period average)	4.6	3.7	4.9	4.5	6.6	5.3	4.9	4.6
Overall fiscal deficit (percent of GDP)	-2.6	-5.0	-8.9	-6.8	-5.4	-4.3	-3.9	-2.3
Public debt, net (percent of GDP)	36.7	40.2	48.8	52.2	47.9	49.8	51.2	51.1
Current account balance (percent of GDP)	22.6	22.1	19.4	21.9	33.2	22.7	22.9	21.9

Source: PNG National Statistical Office; World Bank staff estimates and projections.

Note: The share of extractive sector in gross value added was 29.7 percent in 2019.

Economic growth is projected to slow down in 2023 due to lower global demand, supply constraints due to planned maintenance in extractive facilities and the delayed reopening of the Porgera gold mine. The non-extractive economy is expected to post robust growth, especially in agriculture. The baseline projection does not include potential new resource mega-projects (Papua LNG, P’nyang LNG or Wafi-Golpu), so medium-term growth is expected to settle at 3 percent. Meanwhile, the global economy remains fragile, and slower than expected economic growth could materialize via lower demand for PNG’s exports and a sharper reduction in commodity prices.

Further fiscal consolidation could become more challenging. No substantial resource revenue boost from commodity prices, compared to 2022, is expected in the coming years. Meanwhile, containing expenditure growth becomes more difficult, given the massive needs for human capital and infrastructure investment. Therefore, the government should consider additional efforts to mobilize domestic revenue, both from taxes and from higher collection of dividends from state entities in the resource sector.

B. Special Focus: *Unlocking the Economic Benefits of Gender Equality*

The Special Focus for this issue articulates the case to accelerate gender equality in economic opportunity. Advances in gender equality can boost diversity and unleash productivity gains, as women's skills and talents are used more fully in economic life, and they improve outcomes for the next generation (World Bank 2012a). Addressing gender gaps in education, employment and entrepreneurship opportunities, and safety from violence can result in improved wellbeing for women, but also in more sustainable economic growth.

Gender equality could boost PNG's overall living standards by one fifth in the long run. Bridging the substantial difference between men and women's participation in better, more productive, paid employment could result in GDP per capita being 20.8 percent higher in the long run. Addressing gender-based violence (GBV)¹ could bring economic benefits, in addition to social benefits and improved wellbeing for women. Annual productivity losses associated with GBV-related work absenteeism are estimated at about 0.5 percent of GDP. The real cost is much higher, due to long-term effects of detrimental human capital impacts and other productivity losses beyond absenteeism.

These large potential gains reflect high levels of gender inequality, as women face numerous barriers to economic participation, social and political empowerment. Working women are mostly self-employed in the informal sector. Only 45 percent of employed women earned cash for their work. Women play a large role in agriculture, but female-headed households earn 43 percent less than male-headed households from the sale of food crops (NSO, 2019).² Endemic proportions of GBV and discriminatory social norms contribute to girls dropping out of school early, limit women's access to productive resources and reduce their economic opportunities. Over half of women in Papua New Guinea have experienced physical or sexual violence in their lifetime, which takes a toll on families and the economy by increasing absenteeism and reducing productivity.

The disadvantages experienced by women in accessing economic opportunities are compounded by overlapping challenges at home, in the workplace and in their communities. Gaps in education and skills, domestic obligations and inadequate family planning, a culture of male control, traditional social norms, and legal and institutional barriers to access economic opportunities, all interact and reinforce each other to limit women's economic empowerment. These inequalities also limit women's access to networks and information, impacting women's livelihoods. Many of these challenges came to the fore during the pandemic, when most female business owners were not aware of avenues to seek financial assistance.³

As a step toward unleashing these economic benefits, the government can modernize the Employment Act and address GBV through increased enforcement of commitments and scaling-up interventions. Amendments to the Employment Act are needed to remove discriminatory employment clauses, mandate paid maternity leave, provide greater protections against discrimination on the grounds of pregnancy/maternity, and prohibit sexual harassment in private sector workplaces. Addressing GBV will require a shift in social norms. In the short term, the government can strengthen enforcement of laws such as the Family Protection Act and implementation of the National Strategy to Prevent and Respond to GBV. Successful private sector initiatives that address GBV at the workplace, providing anti-harassment training and support services to those affected by GBV can be scaled-up. Similarly, interventions supporting women's employment through targeted outreach, skilling or access to networks can be sustained and expanded.

¹ There are numerous terms used to refer to violence against women, with no universally agreed upon definition. Here we use gender-based violence and violence against women interchangeably to refer to acts leading to physical, sexual or mental harm or suffering to women (UN General Assembly, 1993). This includes family and sexual violence (FSV) against women, which is the term commonly used to refer to such acts in Papua New Guinea.

² These results are purely descriptive and do not control for differences between female and male-headed households.

³ COVID-19's impact on women-owned and operated MSMEs in PNG, CIPE, July 2021.

Abbreviations and Acronyms

ACT	Additional Company Tax	LNG	Liquefied Natural Gas
AGO	Auditor General's Office	MMBtu	Million Metric British thermal unit
BCFW	Business Coalition for Women	MP	Member of Parliament
BPNG	Bank of Papua New Guinea	MPS	Monetary Policy Statement
BSP	Bank of South Pacific	MTFS	Medium-term Fiscal Strategy
CA	Current Account	NCDC	National Capital District Commission
CBBs	Central Bank Bills	NEET	Not in Employment, Education or Training
CDF	Constituency Development Funds	NFA	Net Foreign Asset
CPIA	Country Policy and Institutional Assessment	NGO	Non-Government Organization
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women	NPL	Non-performing Loan
CRR	Cash Reserve Requirement	NPS	National Public Service
DHS	Demographic and Health Survey	NPV	Non-Partner Sexual Violence
DSA	Debt Sustainability Analysis	NRPB	Non-resource Primary Balance
DSIP	District Services Improvement Program	NSO	National Statistical Office
EAP	East Asia and Pacific	PFM	Public Financial Management
ECE	Early Childhood Education	PIM	Public Investment Management
FPA	Family Protection Act	PNG	Papua New Guinea
FRA	Fiscal Responsibility Act	PNGX	Papua New Guinea Stock Exchange
FSC	Family Support Center	PPF	Production Possibility Frontier
FSV	Family and Sexual Violence	PSIP	Provincial Services Improvement Program
FSVU	Family and Sexual Violence Unit	REER	Real Effective Exchange Rate
GBV	Gender-Based Violence	RPNGC	Royal Papua New Guinea Constabulary
GDP	Gross Domestic Product	SARV	Sorcery-Accusation-Related Violence
GEGI	Gender Employment Gap Index	SDG	Sustainable Development Goals
GESI	Gender Equality and Social Inclusion	SDR	Special Drawing Rights
GTFS	Government Tuition Fee Subsidy	SME	Small and Medium Enterprises
HCI	Human Capital Index	SoE	State-owned Enterprise
ID	Identification	TAF	Temporary Advance Facility
IFMS	Integrated Financial Management System	TVET	Technical and Vocational Education and Training
ILR	Indicator Lending Rate	USDA	United States Department of Agriculture
IMF	International Monetary Fund	UYEP	Urban Youth Unemployment Project
IPV	Intimate Partner Violence	VAW	Violence Against Women
KFR	Kina Facility Rate	WHO	World Health Organization



Part A

ECONOMIC UPDATE

PNG Continues Benefiting from
High Commodity Prices



The economy of Papua New Guinea has returned to growth. (Elly Karo/World Bank)

1. Recent Economic Developments

1.1. Economic growth

1. **The global economy experienced a slowdown in 2022, following a strong rebound in 2021.** According to the 2023 Global Economic Prospects⁴, growth is estimated at 2.9 percent, nearly half of the growth rate seen in 2021. The economic slowdown was seen across both developed and emerging economies, primarily due to Russia's invasion of Ukraine in February 2022 and the subsequent geopolitical tensions that had a significant impact on the global economy. The conflict resulted in disruptions to global trade, energy markets, and commodity prices, leading to inflationary pressures and monetary policy tightening across many countries, further straining economic activity.

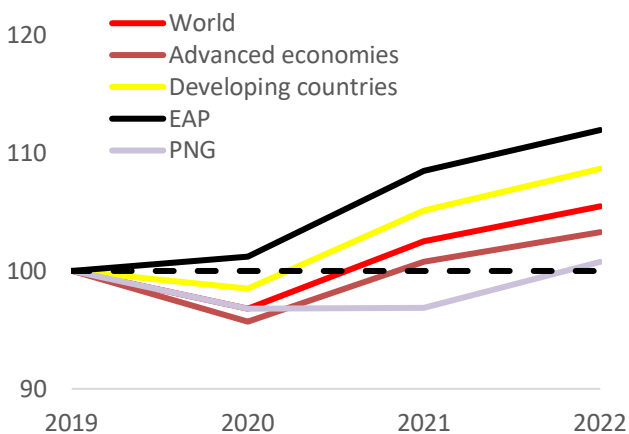
2. **Growth in the East Asia and Pacific (EAP) region slowed significantly in 2022, driven mainly by a slowdown in China.** China's economy grew by only 3 percent in 2022, much slower than the 8.4 percent rebound in 2021, because COVID-related public health measures and weakness in the housing sector dampened economic activity. The rest of the region grew at an estimated 5.8 percent, up from 2.6 percent in 2021, supported by buoyant domestic and external demand. Economic activity remained subdued in the Pacific Islands for most of 2022 because of delayed border reopening and the impact of natural disasters in some countries. While output has surpassed pre-pandemic levels in most of the larger EAP economies, recovery has been uneven across the region.

3. **PNG is estimated to have recorded strong economic growth in 2022, surpassing the pre-COVID level, but the recovery lags global and regional averages.** Following a sharp contraction in 2020 and sluggish growth in 2021, the economy is estimated to have grown by 4.5 percent in 2022, surpassing the

⁴ World Bank. (2023). Global Economic Prospects, January 2023. Washington, D.C. <https://www.worldbank.org/en/publication/global-economic-prospects>

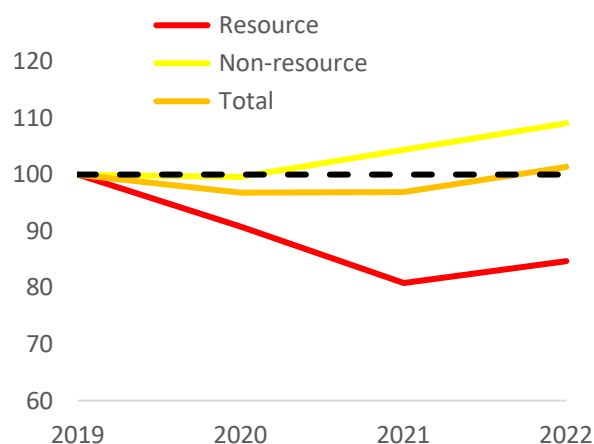
pre-COVID level. Since the recovery in most of the world started earlier, in 2021, PNG lags many comparators in the post-COVID recovery (Figure 1). The non-resource sector is estimated to have grown by 4.5 percent in 2022, driven by the recovery of economic activity following the pandemic. Growth in the resource sector is expected to have been 4.7 percent, attributable to the resumption of operations in the Ok Tedi and Simberi mines, as well as elevated commodity prices. While the non-resource sector surpassed the pre-COVID level by 9 percent, the resource sector is still 15 percent below the pre-COVID level of production (Figure 2).

Figure 1. Real GDP growth
(Index, 2019=100)



Source: Global Economic Perspectives, January 2022

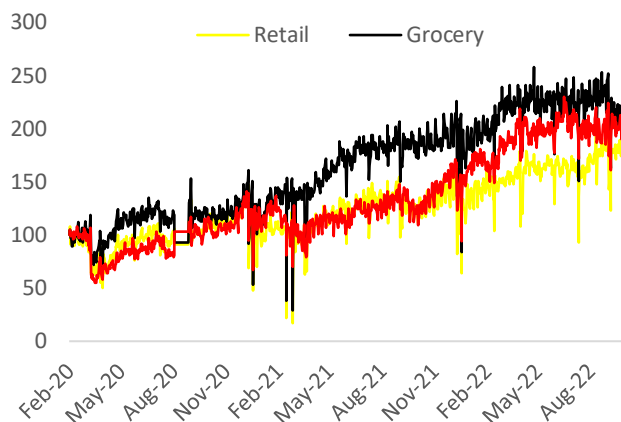
Figure 2. Performance of resource and non-resource sectors
(Index, 2019=100)



Source: Department of Treasury

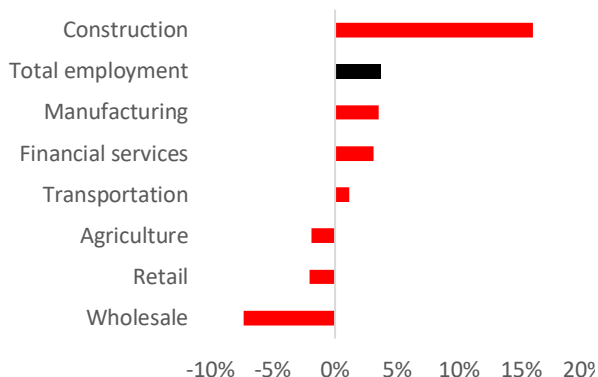
4. The non-resource sector in PNG experienced strong performance in 2022, driven by post-pandemic recovery and government spending. Mobility data from Google, which can serve as a proxy for real-time measurement of economic activity, shows substantial improvements across all categories, including retail and recreation, public transport, and workplaces. Mobility doubled in 2022 across all categories, except for time spent in residential areas. Similarly, data from the Bank of PNG's Business Liaison Survey indicates rising employment and healthy growth in sales in the non-mineral sector in 2022Q2, suggesting a recovery in economic activity. Overall, sales in the non-mineral sector recorded nearly 18 percent annual growth in June 2022. Growth in the non-resource sector was broad-based with all sectors of economy recording expansion in the year to June 2022. The economy received a short-term boost from the government's election-related spending and support package to mitigate inflation pressures. Infrastructure investment also supported growth in the non-resource sector. There was a 54 percent increase in Public Investment Program funding, from K4 billion to K6 billion in 2022. Overall, there has been consistent growth in public capital spending, tripling between 2018 and 2022.

Figure 3. Google Mobility Data
(Index, February 15, 2020=100)



Source: Google Community Mobility Reports

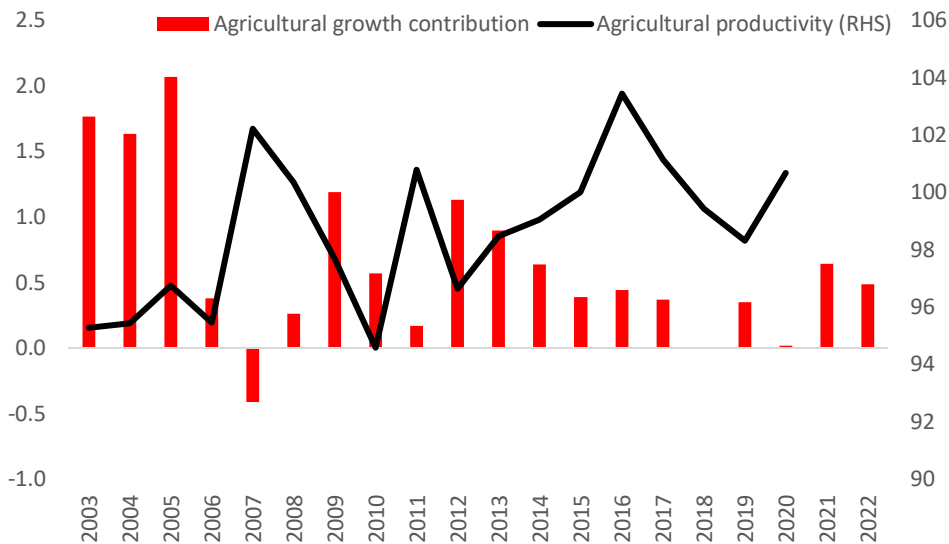
Figure 4: Year-on-year change in employment index
(Percent change over June 2022)



Source: Bank of Papua New Guinea.

5. Meanwhile, activity in the agriculture sector expanded by 2.1 percent in 2022, according to the government estimates. This is below the average growth in the non-resource sector. This could be partially explained by absence of the recovery factor in the agricultural production, which continued unabated during the COVID-19 pandemic. However, the growth contribution of agriculture has been stagnating over the past decade: according to the USDA estimates, over the past decade, agricultural productivity in PNG has grown by 0.6 percent on average while average growth in structural peers has been 2.5 percent⁵.

Figure 5. Agricultural sector's growth contribution and total factor productivity index
(Percentage point (LHS) and Index (2015=100))

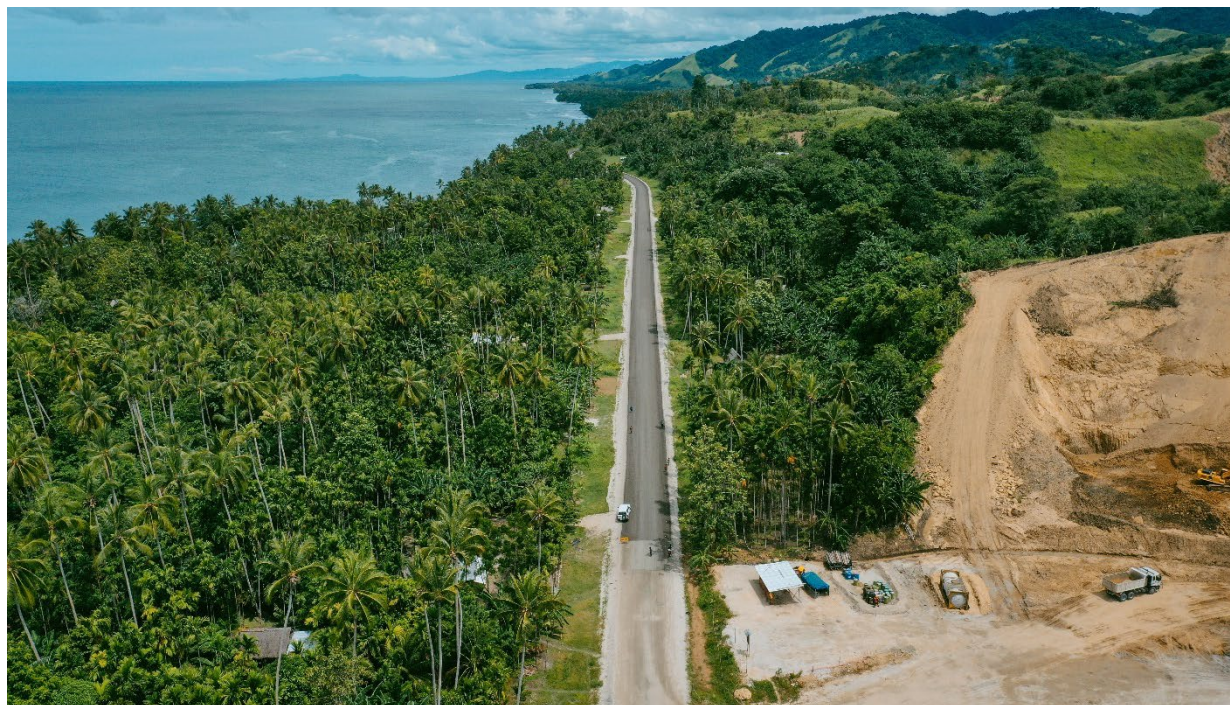


Source: USDA ERS, Department of Treasury

⁵ USDA ERS. (2021). International Agricultural Productivity [Data set]. Retrieved from <https://www.ers.usda.gov/data-products/international-agricultural-productivity/>

6. The resources sector grew on the back of strong activity in the mining sector. Despite the closure of the Porgera mine, the resumption of production in the Ok Tedi and Simberi mines led to healthy growth in the mining sector. The oil and gas sector, on the other hand, recorded a moderate growth rate in 2022. Higher LNG production was offset by lower condensate production. Both crude oil prices and gas prices have steadily declined from their mid-2022 peak. Despite this trajectory, the price of most of PNG's exported commodities remained high relative to historical standards, including crude oil and gas.

7. Employment edged higher as the economy recovered from the COVID-19 pandemic. Formal employment reached its pre-pandemic levels for the first time since the start of the pandemic in 2022. Growth has been particularly strong in the manufacturing and construction sectors. The latter recorded a nearly 15 percent growth rate in the first half of the year, driven by the government's efforts to overhaul infrastructure through Connect PNG. During the first half of 2022 employment in the mineral sector recorded a 12 percent growth year-on-year. However, the suspension of operations at the Porgera mine, as well as disruptions to other mining projects has led to employment in this sector remaining below its pre-pandemic levels.



The fiscal trajectory for Papua New Guinea has improved. (Jeremy Mark/World Bank).

1.2. Fiscal developments

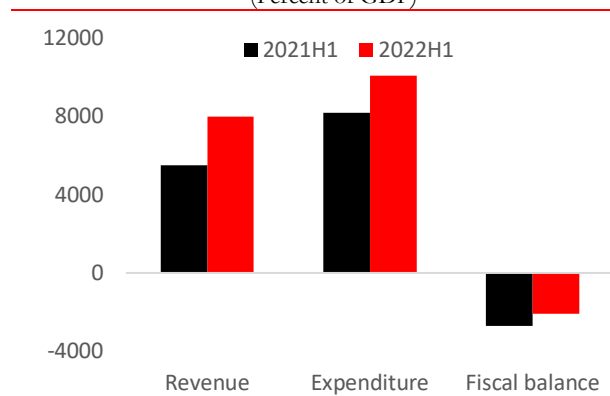
8. **The fiscal deficit narrowed during the first half of 2022, driven by higher-than-expected revenue.** Although expenditure grew by 23 percent, a 45 percent growth in revenue led to a smaller fiscal deficit in the first half of the year compared to the same period in 2021. As a result, the estimate of the fiscal deficit for 2022 was revised down from 5.9 percent of GDP to 5.4 percent as part of the Mid-Year Economic and Fiscal Update and the Supplemental Budget of September 2022.

9. **Significant improvement in the international prices of key export commodities fueled the growth in the resource sector, which resulted in strong revenue growth.** In June 2022, the Export Price Index of the Bank of Papua New Guinea (BPNG) increased by 8 percent year-on-year. Specifically, the prices of oil and gas rose sharply due to the Russian invasion of Ukraine. As a result, mining and petroleum taxes surged to Kina 1.2 billion in the year to June, which was 65 percent higher than what was budgeted for the whole of 2022. Revenue from the resources sector is expected to have increased fourfold in 2022, accounting for nearly a quarter of the estimated total revenue (or 3.8 percent of GDP). Meanwhile, fiscal relief package partially offset these revenue developments. The size of the two Household Assistance Packages was nearly 0.6 percent of GDP and included measures such as temporary removal of fuel excise and GST and lifting the personal income tax free threshold for June-December 2022.

10. **Total expenditure growth was aligned with an expanded revenue envelope in 2022.** Despite factoring in a 10 percent increase for core services such as police, judiciary, teachers, and healthcare workers, the largest component of the operational expenditure - compensation of employees - is expected to have grown only by 4 percent. Meanwhile, the higher spending was primarily driven by the funding allocated for priority government programs, such as the Government Tuition Fee Subsidy, payment of arrears, Connect PNG, and the funding of the National General Elections. Growth in interest costs has been contained due to the shift to more concessional financing. This has led to a decrease in average interest costs from 5.6 percent in 2018 to 4.3 percent in 2022. There has been a shift in the composition of spending in recent years, with a growing share

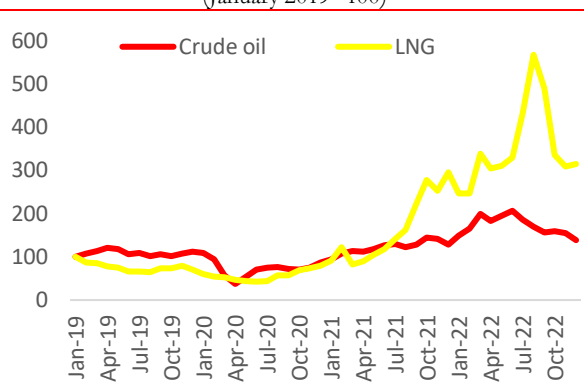
of capital expenditure. In 2022, approximately 40 percent of total spending is estimated to be directed towards priority investment programs, up from 28 percent in 2018. Furthermore, the proportion of capital spending funded by the government has increased significantly, with over two-thirds of estimated capital spending in 2022 being funded by the government, compared to 43 percent in 2018.

Figure 6. Fiscal outcomes
(Percent of GDP)



Source: Department of Treasury

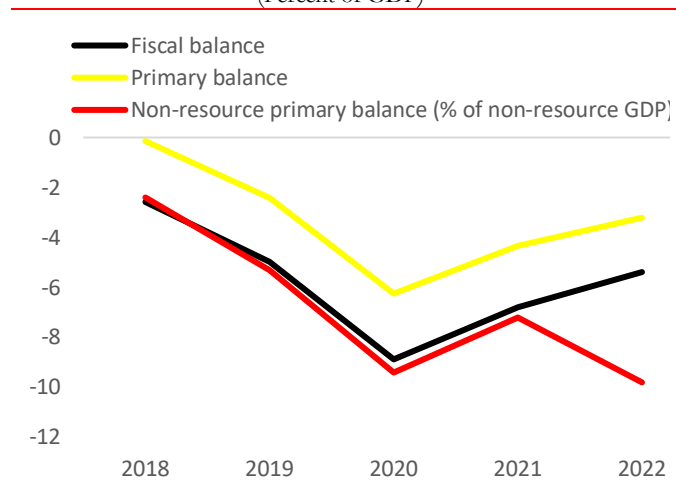
Figure 7. Crude oil and LNG price indices
(January 2019=100)



Source: World Bank

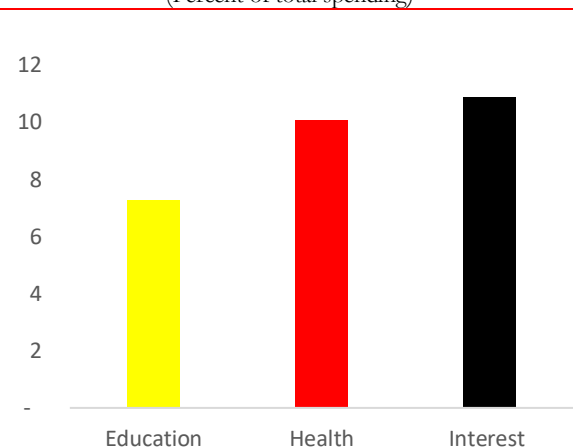
11. The overall fiscal deficit narrowed, but the Non-Resource Primary Balance (NRPB) is estimated to have declined in 2022. The fiscal deficit is estimated to have decreased from 6.8 percent in 2021 to 5.4 percent of GDP in 2022, in line with government plans to eliminate the fiscal deficit by 2027. Meanwhile, the deficit of the NRPB expanded to 9.2 percent of non-resource GDP in 2022 (Figure 8). The NPRB is an important fiscal anchor for the government's MTFs and indicates its commitment to fiscal discipline in resource-rich countries. The increase in non-resource primary deficit despite the decrease in overall deficit highlights the impact of higher resource rents on fiscal outcomes. Therefore, PNG's ability to maintain its fiscal consolidation path without structural changes in revenue and expenditure remains vulnerable to commodity price fluctuations.

Figure 8. Fiscal aggregates
(Percent of GDP)



Source: Department of Treasury

Figure 9. Average spending between 2017-2022
(Percent of total spending)



Source: Department of Treasury

12. The deficit in PNG was financed mainly through external borrowing, including budget support loans and concessional loan facilities. In recent years, the government has sought to finance debt

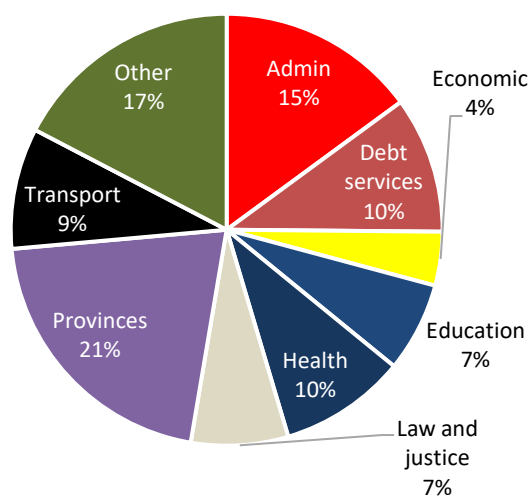
through cheaper options such as concessional loans and longer-term domestic borrowing, resulting in a reduction in the cost of debt despite rising debt levels. However, it is important to note that spending on interest expenditure has consistently exceeded spending on health and education, which are key components of human capital spending.

13. The government maintains its the fiscal consolidation path in 2023, safeguarding fiscal sustainability. The 2023 Budget, approved in December 2022, foresees the deficit to narrow to 4.3 percent of GDP. The expected improvement in the government's fiscal position is primarily due to higher revenue estimates in 2023. According to the 2023 budget, revenue is projected to increase to K19.6 billion (17.1 percent of GDP), reflecting the post-pandemic economic recovery and higher expected non-tax revenue, especially from dividends in the resource sector. Continued fiscal consolidation is important to safeguard fiscal sustainability. The public debt is estimated at 47.9 percent of GDP in 2022. According to the latest World Bank–IMF DSA, the country remains at high risk of debt distress. Conditional on the implementation of the authorities' plans for further fiscal consolidation and conservative financing strategies, external and overall public debt is sustainable.

14. According to the 2023 Budget, the total spending envelope is nearly Kina 24 billion, the largest nominal spending in the history of PNG. This translates to the highest real per capita spending since 2015. Both operational and capital expenditures are expected to increase. Payroll expenses are expected to reach nearly Kina 7 billion, an 8 percent increase, due to an increased number of frontline workers such as police officers, teachers, and healthcare workers. The government will also allocate an additional Kina 560 million, equivalent to 0.6 percent of GDP, for its relief package in 2023.

15. The increase of allocations to constituency development funds (CDFs) should be accompanied by enhanced accountability. The 2023 Budget doubled the resources allocated for CDFs. The increase takes PNG's constituency development funds to a very high level, in global terms. PNG's constituency development funds are now budgeted to be 8.7 percent of total expenditure. The evidence regarding the efficacy of this form of spending for infrastructure access and quality in different sectors is unclear. Enhanced accountability should go hand-in-hand with increased funding (Box 1).

Figure 10. Total expenditure by sector in 2023
(Percent of total expenditure)



Source: Department of Treasury

16. **The government has implemented measures to curb spending, focusing on improving the effectiveness of budget management.** The latest budget includes reforms aimed at increasing financial compliance and reporting by government agencies. Particular attention has been given to controlling payroll expenditure, with the identification of inefficiencies related to the wage bill and the introduction of various measures to prevent significant cost overruns. These measures include assessing current staffing levels, removing illegal payments from the system, upgrading payroll software, and improving the accuracy of personnel emoluments estimation.

17. **Against the backdrop of low human capital, as well as poor ranking in other similar indicators (including SDG Index), achieving ambitious fiscal targets requires careful management of expenditure.** Although containing expenditure to bring debt down is a commendable policy choice, the government should carefully consider the composition of spending cuts. Spending on human capital, including health and education, has generally been low compared to peers. Furthermore, education spending remains below its pre-pandemic level when expressed in real terms. Cutting productive spending could further hinder human capital reducing long-term growth potential of the country.

Table 2: Main Fiscal Indicators (2016–21)

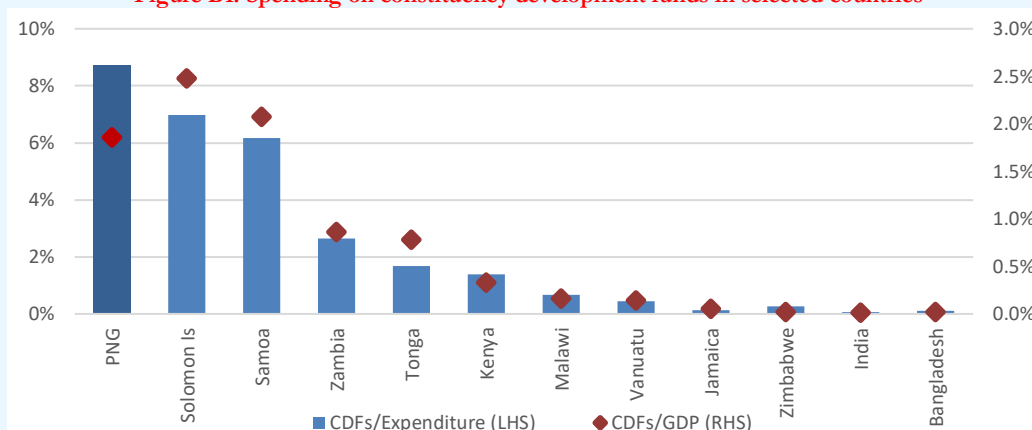
(Percent of GDP)	2016	2017	2018	2019	2020	2021
Total revenue	16.1	15.9	17.7	16.3	14.7	15.0
Tax revenue	12.9	12.6	13.2	13.0	11.9	12.0
Taxes on Income, Profits and Capital Gains	8.1	7.3	7.7	7.2	6.9	6.9
Taxes on Goods and Services	4.0	4.5	4.5	4.7	4.1	4.3
Taxes on International Trade and Transactions	0.8	0.8	1.0	1.1	0.9	0.8
Grants	2.2	2.0	2.3	2.1	1.7	2.3
Other revenue	1.0	1.3	2.2	1.2	1.0	0.7
Total expenditure	20.8	18.4	20.3	21.3	23.5	21.8
Expenses	18.7	16.6	17.7	17.7	19.3	17.8
Compensation of Employees	6.9	6.0	6.5	6.5	7.1	6.6
Use of goods and services	6.3	5.7	6.1	6.9	6.5	6.7
Interest payments	1.9	2.1	2.3	2.5	2.6	2.4
Grants	2.9	1.9	2.5	1.6	2.7	2.1
Social Benefits	0.0	0.0	0.0	0.0	0.3	0.0
Other expenses	0.7	0.8	0.1	0.1	0.1	0.1
Net Acquisition of Nonfinancial assets	2.2	1.8	2.7	3.6	4.3	4.0
Fiscal balance	-4.7	-2.5	-2.6	-5.0	-8.9	-6.8
Primary balance	-2.8	-0.4	-0.2	-2.4	-6.2	-4.4
Non-resource primary balance (percent of non-resource GDP)	-4.5	-1.2	-2.4	-5.3	-9.4	-7.2

Box 1: Constituency Development Funds

In the context of the critical need for fiscal consolidation and enhancing the efficiency of public spending, constituency development funds should be part of the government's reform program. PNG's Members of Parliament (MPs) from both district and provincial constituencies receive Kina 10 million each in the form of District Services Improvement Program (DSIP) and Provincial Services Improvement Program (PSIP) funds, which doubled under the 2023 National Budget. Directed by MPs, DSIPs and PSIPs are meant to be used for capital expenditure. Guidelines on sectoral allocations have changed over the years, but when in place these have typically included allocations across infrastructure, education, health, law and justice, and economic and agriculture sector support, with allowance also for administration costs.⁶ Conceptually, spending at the local level can be an important mechanism for better targeting of local needs, but it is critical that adequate transparency, monitoring and evaluation of development effectiveness is reviewed at the national level to ensure effective national budgeting and enhanced development outcomes. This is an essential element for all countries that use these types of constituency funds, yet these mechanisms are not fully developed in PNG and limited capacity at the local level remains a challenge.

The size of PNG's constituency development funds highlights the need to enhance transparency, monitoring and evaluation, and to consider their size when undertaking fiscal consolidation efforts. PNG's constituency development funds are now budgeted to be 8.7 percent of total expenditure, the highest of any of the countries examined. Measured as a share of GDP, PNG and its Pacific neighbours Solomon Islands and Samoa also stand out as having very large constituency development funds (Figure B1).

Figure B1: Spending on constituency development funds in selected countries



Sources: WB staff calculations, using WEO, country authority budget data and media sources.

Notes: Expenditure data are budget data for 2023 or 2022/23, except for Kenya (2021/22) and Vanuatu (2022). In federal countries, only national government constituency development fund data are included (a potentially relevant omission in India, for instance). A number of countries with constituency development funds are missing from the sample, due to data availability constraints.

The lack of comprehensive and timely information on DSIP and PSIP expenditure and development outputs is a significant limitation to assessing their efficacy. Lack of publication of information on spending, including public statements by the department responsible for monitoring DSIPs and PSIPs suggests that there is insufficient information on the expenditure or outputs to undertake monitoring. In addition, there are insufficient resources and capability to obtain this critical information. The Auditor General's Office (AGO) has published two audit reports on these funds in the last 10 years and has raised significant concerns about the effectiveness of spending and identified a number of non-compliance issues.⁷

There are organizational challenges that should be addressed in enhancing the effectiveness of constituency development funds as part of PNG's essential fiscal consolidation program. The mandate of MPs to undertake capital expenditure in these areas overlaps with the mandate of sectoral agencies, allowing potential misalignment between capital expenditure priorities within sectors. Effective mechanisms to coordinate the capital expenditure of MPs with the recurrent spending of sectoral agencies are not present, allowing potential for capital expenditure not to

⁶ See, for example, Ombudsman Commission of Papua New Guinea (2018: 6-7, 17-18)

⁷ Auditor-General's Office of Papua New Guinea (2014) *District Services Improvement Program*, (2019) *Performance Audit Report on Payments and Acquittals of Service Improvement Programs (SIP)*.

yield useful value because it is not complemented by the requisite recurrent staffing and inputs. The independence between policy making and policy implementation is limited, with MPs responsible for both. The limited capacity of the public administration is exacerbated as the government prioritizes resources for constituency development funds over other public administration programs, leaving the public administration with lower funding, less ability to control capital spending in sectors, and less ability to make budgetary tradeoffs with recurrent spending.⁸

Enhanced scrutiny should go hand-in-hand with increased funding, but still should fall within overall fiscal constraints. The government has indicated that there will be increased national monitoring of constituency development funds to accompany their greater funding, potentially including a role for civil society and community stakeholders.⁹ While the details are yet to be specified, enhanced scrutiny would be a welcome development. In any effort to enhance scrutiny, it will be vital to properly resource and strengthen the independence of the core oversight and accountability institutions for public spending, including the AGO. It will also be important to go beyond reliance on MPs' acquittals, which are often incomplete, late or not submitted at all. The rollout of the Integrated Financial Management System (IFMS) has opened new opportunities for information and reporting on DSIP and PSIP expenditure, while new technology offers opportunities to monitor outputs. If the government is willing, enhanced scrutiny is certainly possible.

⁸ For a fuller list of challenges with constituency development funds in PNG, see Mako and Howes (2023) <https://devpolicy.org/doubling-of-png-mp-funds-a-bad-move-20230207/>

⁹ 'Details to be disclosed after launching of plans, says PM' (2023) *The National* <https://www.thenational.com.pg/details-to-be-disclosed-after-launching-of-plans-says-pm/>



Higher food, betel nut, and transport prices were the major drivers of consumer inflation.
(Jeremy Mark/World Bank).

1.3. Monetary policy and price developments

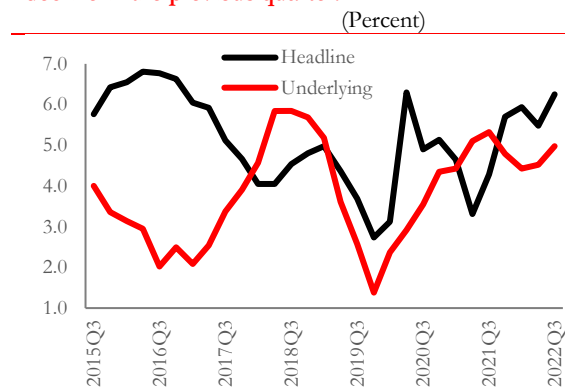
18. Inflation remains elevated following a transitory decline in the second quarter of 2022. Headline and core inflation rose to 6.3 and 5.0 percent respectively, year-on-year, in 2022Q3 from 5.5 and 4.5 percent respectively in the previous quarter. Although the core inflation slowed down during 2021Q3-2022Q1, it has been on the rise since 2022Q2 (Figure 11). Conversely, headline inflation has been increasing since the third quarter of 2021. Prices rose across all expenditure groups in 2022Q3, except for education and clothing. A lower education cost was contributed by the government's education subsidy under the Tuition Fee Subsidy (GTFS) policy which covered 100 percent of the school fees for the primary and secondary education. e allocation to the GTFS was increased by 30 percent in 2022 to Kina 632 million (~US\$180 million) from Kina 486 million (~US\$138.5 million) in 2021.

19. Food, betelnut, and transport inflation continue to be the major driver of headline inflation. Food, betelnut, and transport dominated the other expenditure groups and contributed to more than half of the consumer inflation throughout 2022 (Figure 12). Food prices increased by 8.1 percent, year-on-year, in the September quarter of 2022. The prices of betelnut and mustard rose by 18.6 percent in the same quarter. Transport prices increased by 11.3 percent and was driven mainly by 23.3 percent increase in fares and 16.0 percent increase in fuel prices. The government's fiscal relief package partially mitigated the transport price increase but could not fully compensate it.

20. Inflation has been easing in PNG's major trading partners but remains elevated. Global inflation stayed higher in 2022 due to the lagged effects of a global expansionary fiscal and monetary policy, implemented during the COVID-19 pandemic along with a large currency depreciation against the US dollar and the supply chain distortions from the Russian invasion of Ukraine. A global tighter monetary policy prompted by a surge in consumer prices has somewhat slowed down the pace of inflation in the last few

quarters. Nevertheless, inflation rose in almost all countries, leading to a global inflation of 7.6 percent in 2022, the highest since 1995. Inflation has been easing in PNG’s major trading partners but remains significantly higher than the pre-pandemic levels (Figure 13). Inflation in Australia, PNG’s top import partner, has been on a sustained rise while inflation in China is increasing slowly.

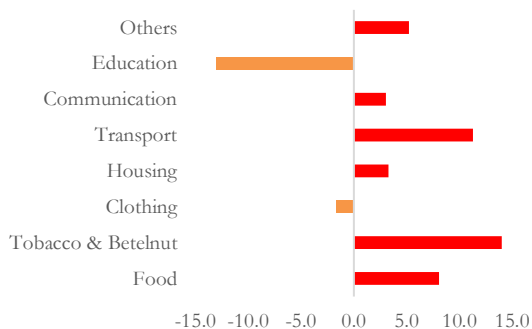
Figure 11. Inflation rose in September 2022 following a decline in the previous quarter.



Source: National Statistical Office (NSO).

Figure 12. Food, betelnut, and transport inflation contributed mostly to the headline inflation.

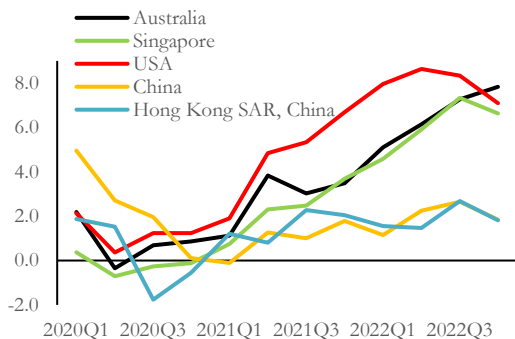
(Sep 2022 inflation by category, percent, year-on-year)



Source: NSO.

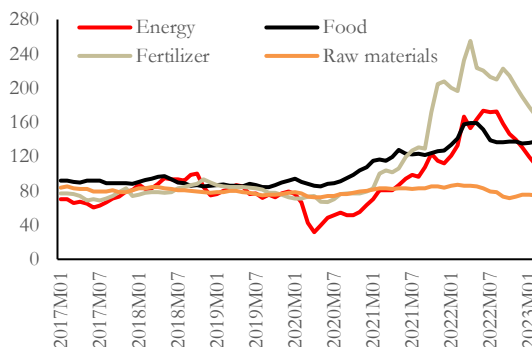
21. The pace of increase in global food and energy prices has slowed down since the third quarter of 2022. Commodity prices in the global markets have been easing mainly due to a weaker demand from the global growth slowdown. Nevertheless, they remain higher than the pre-pandemic levels and the average over the last five years. Energy prices dropped by 17.2 percent in 2022Q4 from the previous quarter but remain 18.7 percent higher, year-on-year. Food, fertilizer, and raw material prices have been declining since the third quarter of 2022 (Figure 14). The fall in energy and fertilizer prices have been sharper than the other commodity groups. The pass through of declining commodity prices is yet to be reflected in PNG’s headline inflation.

Figure 13: Inflation in the major import partners slowed down in the last quarter but remains elevated.
(Year-on-year, percent)



Source: International Financial Statistics, IMF (March 2023).

Figure 14: Global commodity prices have been easing but remain well above their historical averages.
(Index, 2010=100)

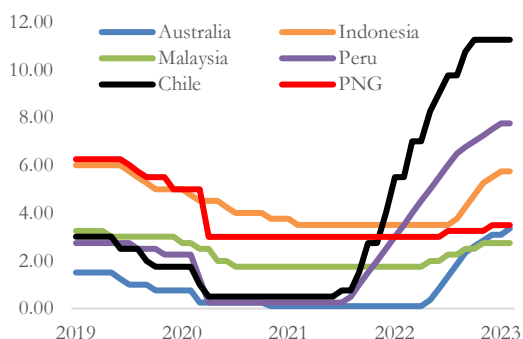


Source: World Bank “Pink Sheet” (March 2023).

22. Since the pandemic, the BPNG has raised its policy rate twice, cumulatively by 50 basis points between July 2022 and January 2023. Following a long spell of monetary expansion, the central bank of PNG (BPNG) signalled a change in monetary policy by raising its policy interest rate, the Kina Facility Rate (KFR), by 25 basis points in July 2022 and further by 25 basis points to 3.50 percent in January 2023. In response to the central bank’s monetary tightening, commercial banks also raised their lending rates. For example, the Bank of South Pacific (BSP) raised the indicator lending rate (ILR) by 25 basis points to 10.35 percent in September 2022. Another major bank, the Kina Bank, raised the ILR by 25 basis points to 6.50 percent in October 2022.

However, the pace of policy rate hikes in PNG was slower than in its peers (Figure 15). Between January 2022 and February 2023, the policy rate was raised only twice in PNG compared with 12 times in Peru, nine times in Australia, six times in Chile and Indonesia, and four times in Malaysia. Nevertheless, inflation rose relatively slower in PNG due to a smaller exchange rate pass through from a managed exchange rate (Figure 16).

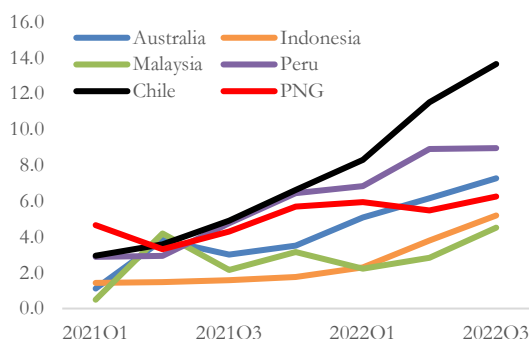
Figure 15: Policy rate hikes were slower than the peers.
(Central bank policy rates, percent)



Source: Central bank of respective countries.

Figure 16 Inflation rose relatively slower than in the peers.

(Inflation, year-on-year)

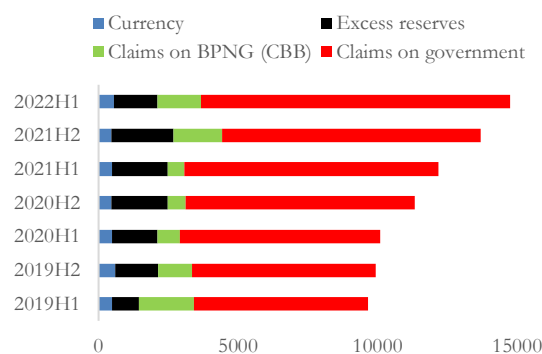


Source: International Financial Statistics, IMF (March 2023).

23. The impact of the policy rate hike on the market interest rates and liquidity is yet to be realized.

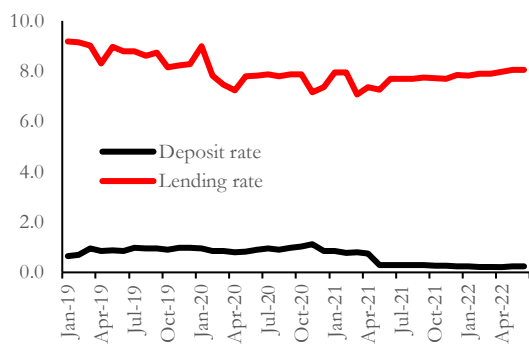
The financial sector liquidity continued to rise in the first half of 2022, led mainly by the commercial banks' holding of government securities. The total liquid assets of the commercial banks increased by 21.3 percent, year-on-year, and stood at Kina 14.8 billion in the first half of 2022 (Figure 17). The higher liquidity resulted from a 21.5 percent rise in government borrowing from the banking sector during this period which contained more than 75 percent of the market liquidity. Further, the interest rate spread (differential between the weighted average lending and deposit rate) widened to 7.8 percent in 2022Q2 from 7.4 percent in 2021Q2 (Figure 18). Monetary policy tightening since mid-2022 is likely to impact the market interest rates and financial sector liquidity which would be assessed when the data is available.

Figure 17: Commercial banks' holding of liquid assets.
(Kina, millions)



Source: Bank of Papua New Guinea.

Figure 18: Interest rate spread remains high.
(Weighted average rates, percent)



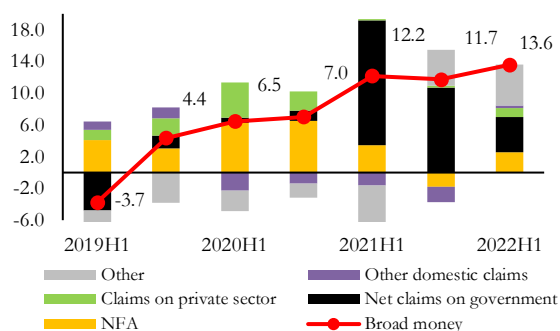
Source: Bank of Papua New Guinea.

24. A long spell of expansionary monetary policy limits the effectiveness of the recent tightening stance of the central bank.

The BPNG has been maintaining an expansionary policy since the second half of 2019 with the growth rate of broad money supply reaching double-digit growth in 2021 and peaking to 13.6 percent in the first half of 2022, the highest in the last ten years (Figure 19). Accordingly, a reversal of the monetary policy stance with two occasions of policy rate hike since July 2022 would have a little success in bringing down money supply to the desired level. The BPNG projects broad money growth to remain elevated at 13.7 percent at the end of 2022 before slowing down to 3.0 percent in 2023. The higher growth of money supply would be driven by the government's borrowing from the banking sector and an increase in the net

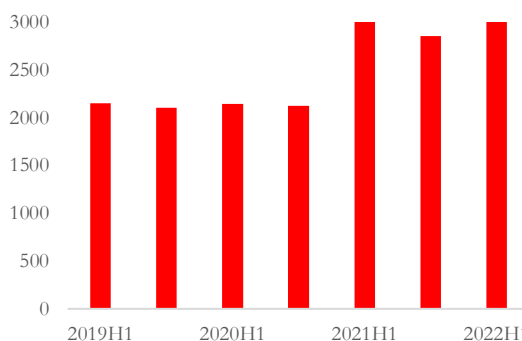
foreign assets from the extractive sector’s tax payments. The government’s borrowing from the banking sector continues to be a significant driving force of the money supply growth which has increased substantially in the recent quarters (Figure 20). However, the government has announced implementation of its fiscal consolidation plan in the 2023 National Budget which is likely to put a strain on the borrowing from the financial sector over the medium term.

Figure 19: Accommodative monetary policy till the first half of 2022 led to an expansion in money supply.
(Year-on-year growth and sectoral contributions, percent)



Source: Bank of Papua New Guinea.

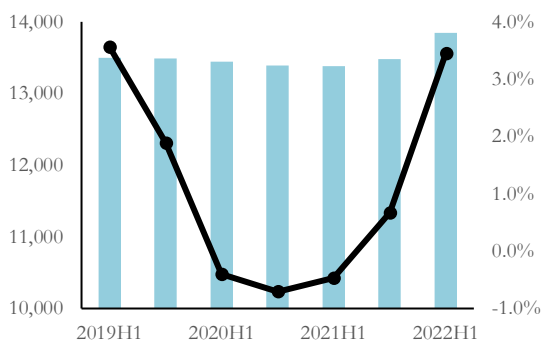
Figure 20: Net claims of central government.
(Million US\$)



Source: Bank of Papua New Guinea.

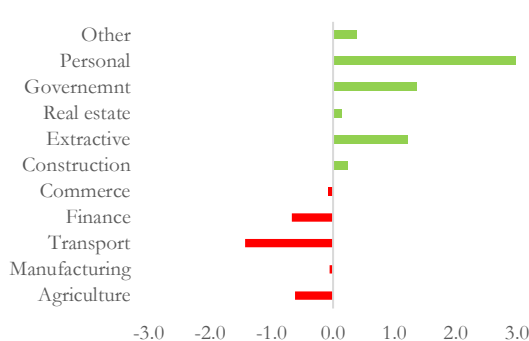
25. Commercial credit has been picking up as economic recovery is underway. With recovery from the COVID-19 pandemic, the demand for institutional credit has gone up since the first half of 2021. The growth rate of commercial banks’ aggregate advances was 3.4 percent in the first half of 2022, close to the pre-pandemic growth of 3.6 percent (Figure 21). This was led by a higher credit to person, government, and the extractive sector. However, credit to the overall business sector fell by 1.1 percent, year-on-year, in the first half of 2022, driven mainly by a fall in loans to the agriculture and transport sector (Figure 22). According to the central bank’s business survey, the private sector is recovering from the slowdown with a notable increase in their sales in 2022 (Bank of PNG, Monetary Policy Statement, September 2022).

Figure 21: Commercial credit picking up since 2021.
(Outstanding Commercial Banks’ Advances, million Kina [bars] and year-on-year growth rates [line])



Source: Bank of Papua New Guinea.

Figure 22: ...And went mostly for personal loans.
(Sectoral contributions to credit growth in the first half of 2022, percent)



Source: Bank of Papua New Guinea.

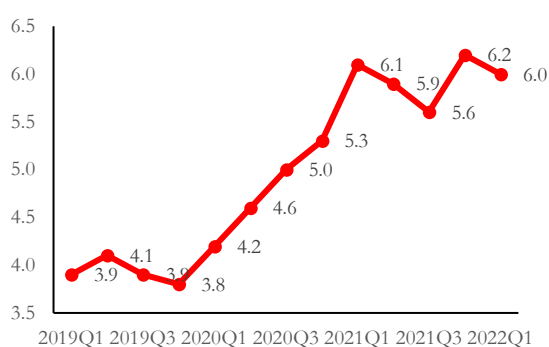
26. Non-performing loans declined in the first quarter of 2022 but remain higher than the pre-pandemic level. Following the peak of 6.2 percent in the last quarter of 2021, the non-performing loans (NPLs) declined to 6.0 percent of the gross loans in the first quarter of 2022 (Figure 23). Nevertheless, NPLs remain elevated and higher than the pre-pandemic level. Notably, NPLs grew faster than in peer countries during the pandemic (Figure 24). Between 2019Q1 and 2022Q2, NPLs increased by 61.8 percent in PNG, 23.9 percent in Malaysia, 18.7 percent in Peru, and 13.5 percent in Indonesia (IMF 2023). Further, commercial banks

maintained less regulatory capital (as percentage of the risk-weighted assets) in 2022Q1 (36.3 percent) compared to 41.1 percent in the previous quarter, which falls below the 5-year average of 37.3 percent.

27. Nevertheless, the banking sector reported profits in 2022. The PNG government introduced Additional Company Tax (ACT) in 2022 to generate a higher revenue from the non-competitive sectors (holding a market share of 40 percent or more). As part of it, the Bank of South Pacific (BSP), the largest commercial bank in PNG, made a one-off payment of Kina 190 million (~ US\$54 million) in 2022. However, BSP reported a net profit of Kina 1.1 billion (~ US\$312.6 million) for 2022, 0.5 percent higher than the previous year. Another major bank, Kina Bank (not subject to the ACT), reported a net profit of Kina 106.1 million (~ US\$30.1 million) for 2022, a 11 percent increase from the last's year's profit. Economic recovery from the pandemic and higher business activities were reported as the key drivers of the outcome. The government has repealed the ACT in the 2023 National Budget, effective from 1 January 2023, while the corporate income tax has been increased from 30 percent to 45 percent, effective from the same date.

Figure 23: Non-performing loans declined in the first quarter of 2022.

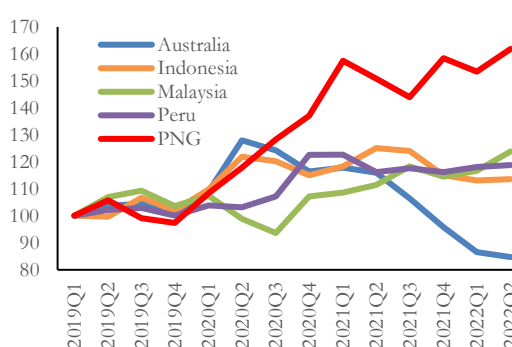
(Non-performing loans to gross loans, percent)



Source: Bank of Papua New Guinea.

Figure 24: NPLs relative to the peers.

(Non-performing loans to gross loans, 2019Q1=100)



Source: IMF, Financial Soundness Indicators.

Table 1. Selected monetary and price indicators

	2016	2017	2018	2019	2020	2021	2022 Jan-Jun
Broad money growth	10.9	-0.7	-3.9	4.4	7.0	11.7	13.6
Reserve money growth	24.4	-16.6	-1.9	12.4	2.2	10.8	7.1
Domestic credit growth	24.6	0.1	-6.8	5.1	2.3	9.3	5.7
Growth of credit to the private sector	7.2	-3.6	7.1	4.0	4.3	0.4	2.2
Inflation, period-average	6.7	5.4	4.4	3.9	4.9	4.5	5.9
Inflation, end-of-period	6.6	4.7	4.8	2.7	5.1	5.7	6.3
Kina facility rate, period average	6.25	6.25	6.25	5.90	3.50	3.00	3.00
Interest rate on 28-day CBB, period average	1.15	1.30	1.40	1.39	1.37	1.31	1.08
Interest rate on 182-day T-bills, period average	4.72	4.73	4.71	4.68	4.63	4.29	2.12
Deposit rate, weighted average, period average	0.64	0.52	0.68	0.88	0.92	0.45	0.23
Lending rate, weighted average, period average	8.38	8.39	9.10	8.68	7.75	7.64	7.95

Source: Official historical data.



A large trade surplus resulted both from the higher commodity price-driven exports and from a slowdown in imports. (Hamish Wyatt/World Bank).

1.4. External sector

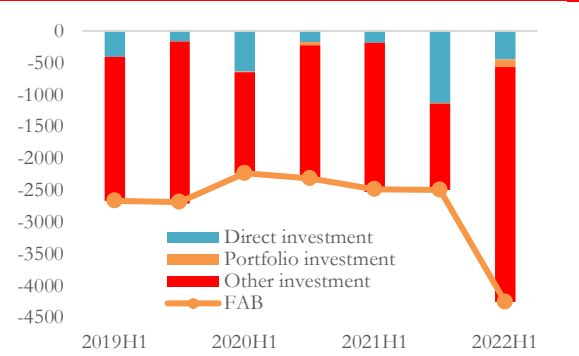
28. The current account (CA) continued to be in surplus in the first half of 2022, driven by a higher surplus in the goods account. The current account was in a record surplus of US\$4.3 billion in the second half of 2022, a 31.5 percent rise relative to the first half of 2021 and more than 90 percent rise from the corresponding period in the previous year (Figure 25). The increase in the current account reflected 18.9 percent rise in the trade surplus from US\$ 4.3billion in the second half of 2021 to US\$5.1 billion in the first half of 2022. Strong export performance, particularly by the extractive sector, and a persistent import slowdown contributed to the higher surplus in the trade account. The income and service accounts continued to be in deficit in the first half of 2022.

Figure 25: Current account balance and compositions.
(Million US\$)



Source: Bank of Papua New Guinea.

Figure 26: Financial account balance and compositions.
(Million US\$)



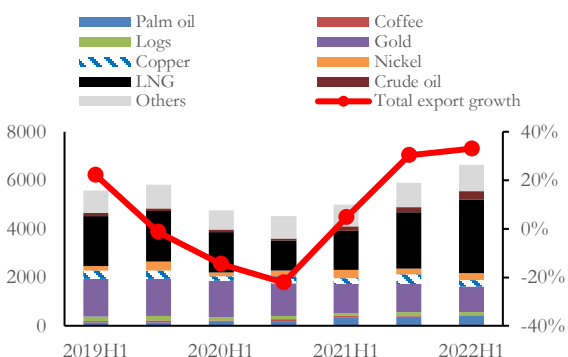
Source: Bank of Papua New Guinea.

29. A large deficit in the capital and financial account, mainly due to the government's extractive sector related debt repayments, continued to offset the current account surplus. The large surplus in the current account in the first half of 2022 was mostly offset by a record deficit of US\$4.2 billion in the capital and financial account, a 70 percent rise from the deficit in the second half of 2021 (Figure 26). This was mainly due to a 1.7-fold increase in 'other investment' which mainly reflects a higher external debt repayment by the government relating to the extractive sector. The net investment abroad by PNG residents declined from US\$1.1 billion in the second half of 2021 to US\$447 million in the first half of 2022. The surplus in the balance of payment dropped from US\$781.9 million to US\$67.7 million during the same period.

30. Export growth continued in the first half of 2022, supported by higher natural gas exports. Following a steady decline during most of 2020, exports rebounded strongly in the first half of 2021 and the pace of growth continued in the first half of 2022. The value of total exports in the first half of 2022 was US\$6.6 billion, 33 percent higher than in the corresponding period of 2021 (Figure 27). This reflects a steady growth of natural gas exports buoyed by higher energy prices in the global markets. The export of liquefied natural gas (LNG) increased by 89.1 percent in the first half of 2022 and contributed to 46 percent of the total export earnings, the highest ever recorded since the commencement of LNG exports in 2014. Conversely, mining exports underperformed in the first half of 2022; gold exports fell by 3.5 percent, year-on-year, while copper exports rose only by one percent during this period. The non-extractive exports maintained a sustained growth of 11 percent, year-on-year, in the first half of 2022, driven mostly by a higher palm oil and logs exports. In contrast, the slowdown in coffee exports continued in the first half of 2022.

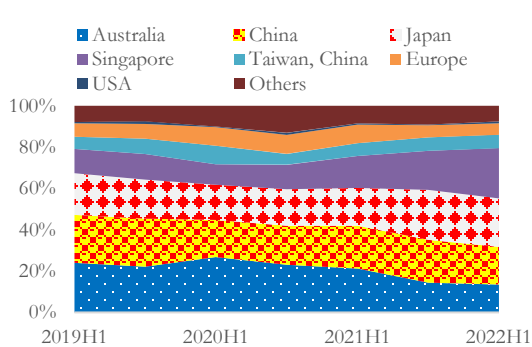
31. While exports to Australia declined exports to other major export partners increased. Papua New Guinea's export destinations are highly concentrated. The top five export partners- Australia; China; Japan; Singapore; and Taiwan, China consume more than 80 percent of PNG's exports. While Australia is one of the most important export partners, its share of PNG's exports fell from 21.2 percent in the first half of 2021 to 13.5 percent in the first half of 2022, reflecting a 14.4 percent decline, year-on-year (Figure 28). Conversely, exports to all other major destinations rose during this period- China (by 18 percent); Japan (by 71.8 percent); Singapore (by 112.6 percent); and Taiwan, China (by 40.6 percent). This reflects lower gold exports to Australia and higher energy exports to the other partners.

Figure 27: Export composition and growth rate.
(Million US\$ and y-o-y growth rate)



Source: Bank of Papua New Guinea.

Figure 28: Export by destination.
(Percent of total exports)

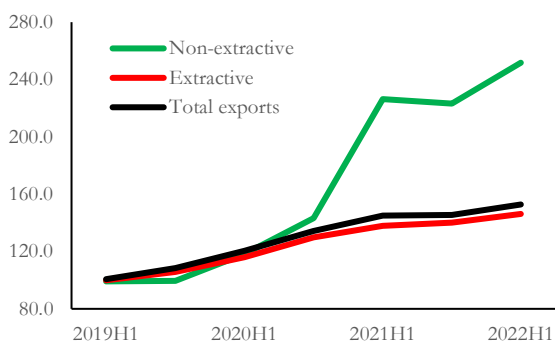


Source: Bank of Papua New Guinea.

32. Strong export prices compensated for the slowdown in export volume and resulted in a higher export revenue. The global prices of PNG's major export items had been on a sustained increase over the last two years. Between the first half of 2019 and the first half of 2022, natural gas price rose by 90.2 percent while gold price increased by 32.2 percent. In the non-extractive sector, coffee and palm oil prices were respectively 71.5 percent and 66.4 percent higher between these two periods. These led to a 52.8 percent higher

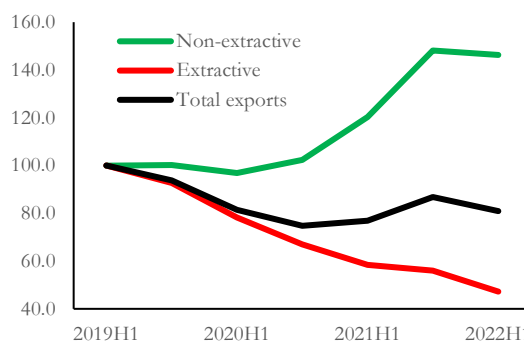
export price index (Figure 29). However, the extractive sector, which generates more than 80 percent of the total export revenue, could not respond well to a favourable price environment. The volume of extractive exports was 58.2 percent lower in the first half of 2022 which dragged down the total export volume by 21 percent despite a 46.2 percent rise in the volume of non-extractive exports (Figure 30). Nevertheless, the price effect outweighed the quantity effect, leading to a buoyant growth in the export revenue.

Figure 29: Export price index.
(Index, the first half of 2019=100)



Source: Bank of Papua New Guinea.

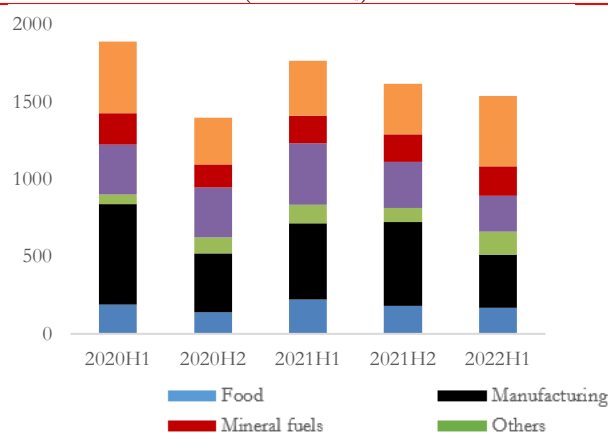
Figure 30: Export volume index.
(Index, the first half of 2019=100)



Source: Bank of Papua New Guinea.

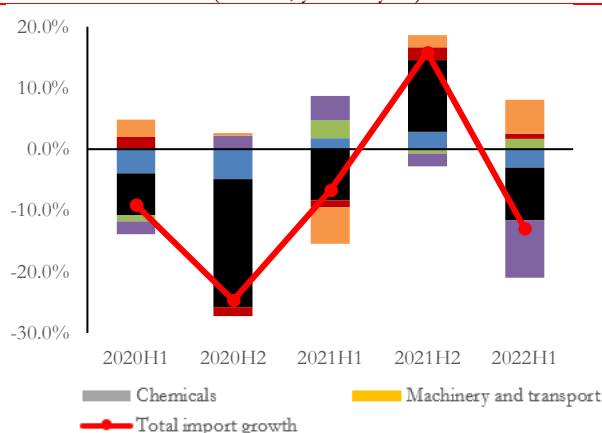
33. Import slowdown continued in the first half of 2022 and was driven by lower food, manufacturing, and capital machinery imports. During the first six months of 2022, total import was US\$1.54 billion compared to US\$1.76 billion during the same period of 2021 (Figure 31). This reflects lower food, manufacturing, and capital machinery imports (Figure 32). Food imports fell by 24.3 percent while manufacturing and ‘machinery and transport’ imports were respectively 30.4 percent and 41.9 percent lower in the first half of 2022 compared to the first half of 2021. A sustained fall in the import of capital machinery for more than a year signals to a lower investment, particularly in the non-extractive sector, and has implications for the future economic growth.

Figure 31: Import composition.
(Million US\$)



Source: Bank of Papua New Guinea.

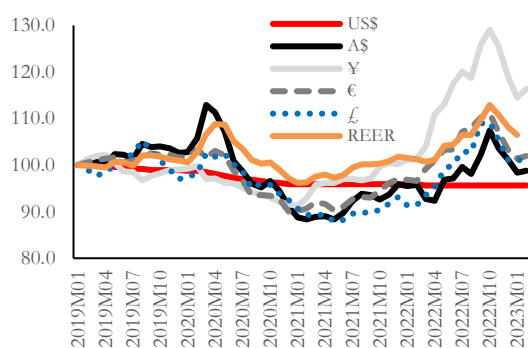
Figure 32: Contributions to import growth.
(Percent, year-on-year)



Source: Bank of Papua New Guinea.

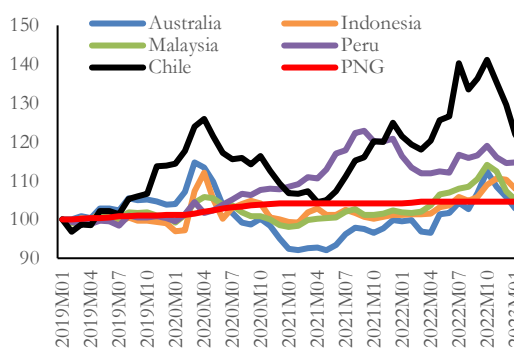
34. The Kina remained flat against the US dollar which does not reflect the characteristics of a commodity currency. The exchange rate of Kina remained stable against the US dollar throughout 2022 with a small depreciation of 0.3 percent, reflecting the central bank's intention to maintain a stable exchange rate regime (Figure 33). The Kina appreciated against the other major currencies mainly due to the strengthening of the US dollar against those currencies. Accordingly, the real effective exchange rate (REER) tended upward in 2022, reflecting a loss of export competitiveness in the international markets. However, REER has been declining since November 2022, mainly due a slower pace of inflation in PNG relative to its trading partners. Nevertheless, a prolonged period of Kina stability is in sharp contrast to the fundamentals of a commodity currency as reflected in the exchange rates of its peers (Figure 34).

Figure 33: Kina remained stable against the US dollar while appreciated against other partners' currencies.
(Jan-2019=100)



Source: Bank of Papua New Guinea and IMF (January 2023).
An increase reflects an appreciation of Kina.

Figure 34: Exchange rate of peers against the US\$.
(Jan-2019=100)



Source: IMF (January 2023).
An increase reflects currency depreciation against the US dollar.

35. The forex inflows improved in 2022 but remains a major concern for the local businesses. Higher global commodity prices throughout 2022 has been beneficial to PNG in terms of a higher government tax revenue and a greater inflow of foreign exchange, particularly, from the extractive sector. According to the BPNG, forex inflows in the first eight months of 2022 were US\$3.61 billion, 24.6 percent higher than in the corresponding period of 2021, received mainly from the extractive sector. In addition, US\$777.7 million was credited to the BPNG account as LNG taxes. However, a forex outflow of US\$4.16 billion during the same period resulted in a net outflow of US\$546.9 million and was partially met by the central bank's forex sale of US\$537.7 million. The foreign exchange market faced an outstanding order of US\$174.6 million during this period (Bank of PNG, Monetary Policy Statement, September 2022). While the outstanding orders have declined in 2022, the availability of foreign currency is still viewed as the one of the major impediments to doing business in PNG, reported by several local businesses (Business Advantage 2022¹⁰)

36. Gross international reserves reached a record height of US\$ 4.1 billion in 2022. The inflow of foreign exchange improved significantly in 2022 due to a higher export revenue, foreign loans for budgetary support and higher government revenue from mineral and petroleum taxes. All of these contributed to the build-up of foreign exchange reserves of the central bank which stood at US\$4.1 billion at the end of 2022. More than US\$ 1 billion was accumulated in forex reserves during the second half of 2022 (Figure 35). However, there has not been any notable improvement in the forex holdings of the commercial banks which remains stagnant at just over US\$100 million (Figure 36).

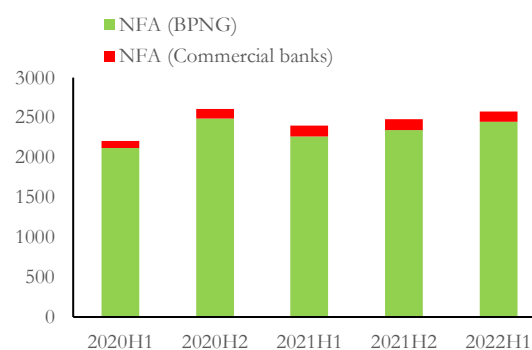
¹⁰ Available from, <https://www.businessadvantagepng.com/foreign-exchange-shortages-still-biting-business-in-papua-new-guinea/>

Figure 35: International reserves remain above the requirement.
(Gross reserves, billion US\$)



Source: Bank of Papua New Guinea and Staff estimate.

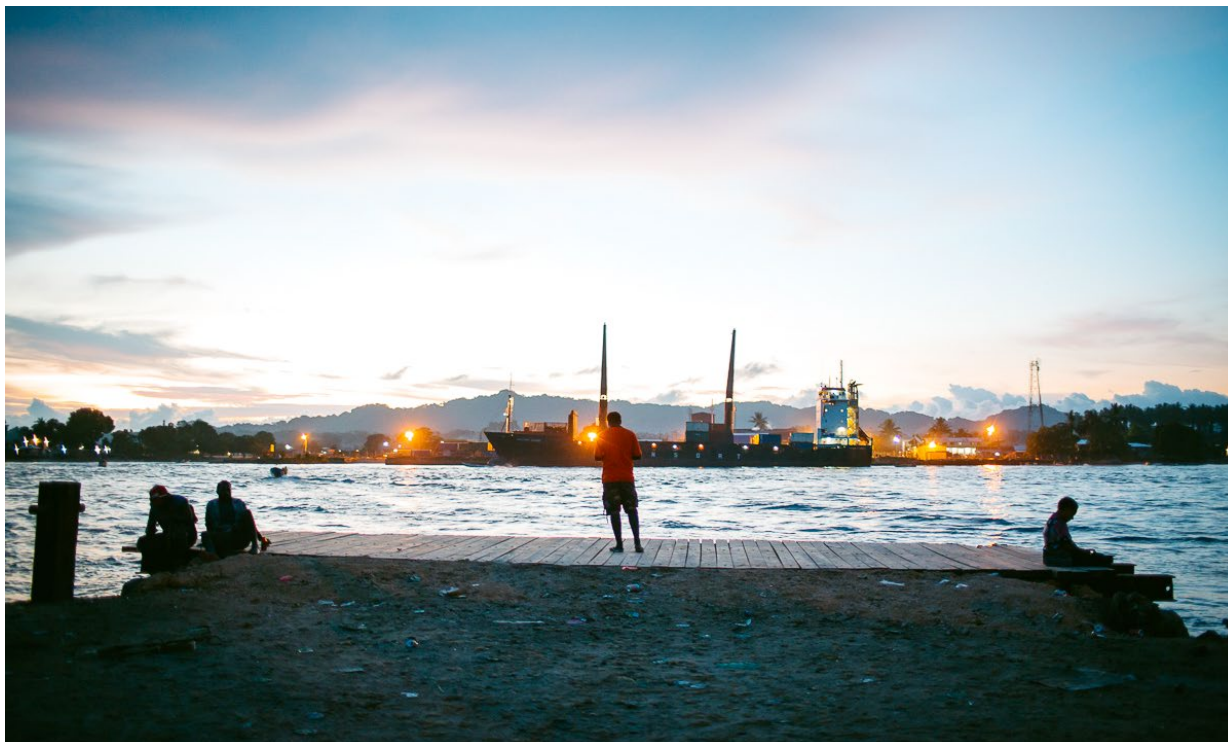
Figure 36: Net foreign assets of commercial banks remain stagnant at just over US\$ 100 million.
(Depository corporations' NFA, million US\$)



Source: Bank of Papua New Guinea.

Table 2. Selected external sector indicators

	2016	2017	2018	2019	2020	2021	2022 Jan-Jun
External accounts	<i>(In millions of U.S. dollars, unless otherwise indicated)</i>						
Exports, f.o.b., of which:	8,204	9,953	10,495	11,401	9,285	10,420	6,631
Extractive sector	6,455	7,960	8,498	9,595	7,489	8,434	5,630
Imports, c.i.f.	2,070	3,060	3,512	3,933	3,284	3,024	1,540
Current account	5,183	5,347	5,528	5,468	4,987	5,609	4,313
(in percent of GDP)	25.0	23.5	22.9	21.9	21.0	22.0	...
Overall balance of payments	10	110	561	125	450	550	68
Gross official reserves	1,656	1,736	2,215	2,313	2,677	2,878	2,953
Nominal exchange rate (Kina/US\$), period average	3.13	3.19	3.29	3.39	3.46	3.51	3.52
Nominal exchange rate (Kina/US\$), end of period	3.17	3.23	3.37	3.41	3.51	3.51	3.52



A reduction in commodity prices, and a lower demand for exports from the decelerating global economy are significant risks, and might result in slower than expected economic growth for Papua New Guinea (Conor Ashleigh/World Bank)

2. Outlook and risks

2.1. *Global economic outlook and risks*

37. **Global growth prospects have improved in recent months, aided by the reopening of the Chinese economy and strong services recovery in many economies.** Manufacturing surveys for several major economies continue to indicate declining activity, but at a slower pace than previously. Forecasts for global growth in 2023 have been revised upwards, reflecting better-than-expected growth in the United States and Euro area in 2022Q4 and an overall improvement in global sentiment.

38. **Growth in the EAP region is projected to accelerate in 2023.** The higher growth is mostly due to China, where activity is projected to rebound sharply, following the economy's swift reopening in early 2023. Growth in the rest of the region is projected to slow in 2023. While domestic demand is expected to remain the primary driver of growth in EAP, high inflation is likely to dampen private consumption. Additionally, high household debt in some EAP countries could exacerbate the impact of high interest rates, increase financial burdens, and further weigh on consumption. Private investment growth is also expected to be tempered by the high interest rate environment and uncertainty from external headwinds. Contributions from exports are expected to decrease due to the moderation in global growth resulting in a slowdown in external demand.

2.2. *Papua New Guinea's economic outlook and risks*

39. **In PNG, economic growth is projected to slow down in 2023 due to lower global demand, supply constraints due to planned maintenance in extractive facilities and delayed reopening of the Porgera gold mine.** The non-extractive economy (70 percent of GDP) is expected to post a robust growth, especially in agriculture. The 2023 Budget allocated K6.7 billion for major infrastructure works, which is 10 percent higher than the previous year. The government has allocated an additional K590 (0.6 percent of GDP)

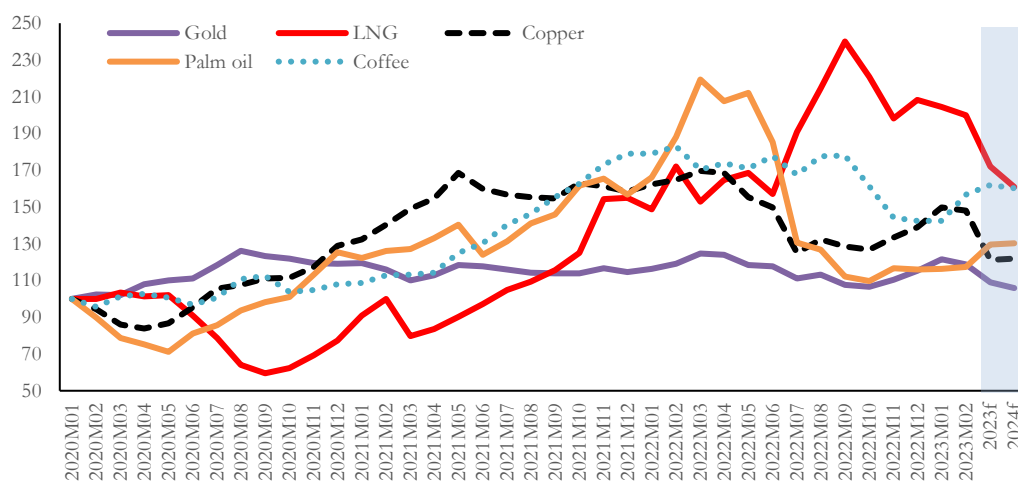
to address cost of living pressures in 2023. The growth in spending is expected to provide the necessary stimulus to the economy and drive growth in the non-resource sector. Agricultural activity is also expected to record healthy growth in 2023. Furthermore, the economy is also expected to benefit from relative political stability in the 18-month grace period following the elections.

40. The baseline projection is cautious on new investment assumptions. The government of PNG has committed to a large-scale infrastructure program, including building and rehabilitating roads, developing airports, and seaports. However, the execution of large projects has proved challenging in many developing economies, including PNG. The challenges relate to funding, capacity, as well as institutional factors such as corruption, political instability, and appropriate management of environmental concerns and social impacts. The baseline projection does not include potential new resource mega-projects (Papua LNG, P'nyang LNG or Wafi-Golpu), so the medium-term growth is expected to settle at 3 percent.

41. PNG's economic growth faces several downside risks, including weaker-than-expected commodity prices. The global economy remains fragile, and slower than expected economic growth could materialize via lower demand for PNG's exports and a sharper reduction in commodity prices. Political risks are smaller during the 18-month grace period for the government when no-confidence vote is not allowed, but this period expires in February 2024. Higher inflation, including higher fuel and food prices, also poses a risk to the outlook. Partner countries (e.g., Australia) have been struggling with inflation despite pursuing an aggressive monetary tightening. On the upside, resource projects may come online earlier than anticipated and could strengthen growth over the medium term.

42. A more flexible monetary policy framework could help withstanding external shocks. The prices of PNG's major export commodities began to fall in the last quarter of 2022 and continued in the first quarter of 2023 (Figure 37). As a result, the windfall from higher global commodity prices is likely to decline over the near and medium term. As economic recovery continues and import demand resumes, businesses are likely to call for more foreign exchange, which could put more pressure on the central bank's forex reserves. Accordingly, the current buffer of the forex reserves should be spent prudently to meet the future demand and to withstand any unexpected global shocks. A pegged (stabilized) exchange rate limits the effectiveness of monetary policy, in particular, to reduce the economic volatility. The BPNG should consider gradually allowing greater exchange rate flexibility and reintroducing kina convertibility.

Figure 37: Global prices of PNG's major export commodities have fallen in the second half of 2022.
(Index, January 2020=100)



Source: World Bank Pink Sheet, March 2023 (actuals), Commodity Markets Outlook, October 2022 (forecasts).

43. Further plans for fiscal consolidation could become more challenging. No substantial resource revenue boost from commodity prices, compared to 2022, is expected in the coming years. Meanwhile, containing expenditure growth becomes more difficult, given the significant needs for human capital and infrastructure spending. Therefore, the government could consider additional efforts in domestic revenue mobilization, both from taxes and from higher collection of dividends from state owned entities in the resource sector.



Part B

SPECIAL
FOCUS

Unlocking the Economic
Benefits of Gender Equality



Bridging the substantial difference between men's and women's participation in better, more productive paid employment could raise GDP per capita by about 20 percent in the space of a generation

3. The case for gender equality in economic opportunities

44. **The Special Focus for this issue articulates the case to accelerate gender equality in economic opportunity.** Advances in gender equality can boost diversity and unleash productivity gains, as women's skills and talents are used more fully in economic life, and they improve outcomes for the next generation (World Bank 2012a). Addressing gender gaps in human capital endowments, employment and entrepreneurship opportunities, and safety from violence in PNG would result not only in improved wellbeing for women, but also in more sustainable economic growth. In PNG, according to one recent estimate, increasing women's engagement in paid work to the level of men's could result in GDP per capita being 20.8 percent higher in the long run.

45. **These significant potential gains for growth reflect high levels of gender inequality in Papua New Guinea, where women face numerous barriers to economic, social and political empowerment.** PNG ranks 161st out of 162 countries in the UNDP's 2021 Gender Inequality Index. Women face significant disadvantages in economic participation. Only 45 percent of working women work for pay, most often in self-employment activities in the informal sector. Women play a large role in agriculture, but female-headed households earn 43 percent less than male-headed households from the sale of food crops (NSO, 2019).¹¹ The endemic rates of gender-based violence¹² and discriminatory social norms contribute to girls dropping out of school early, limit women's access to productive resources and reduce their economic opportunities. 58 percent of women have experienced physical or sexual violence in their lifetime, which beyond the significant personal impact also takes a heavy toll on families and the economy.

¹¹ These results are purely descriptive and do not control for difference in characteristics between female and male-led households such as household size or geographic location. Responses relate to the period of two weeks preceding the survey.

¹² There are numerous terms used to refer to violence against women, with no universally agreed upon definition. This chapter uses gender-based violence and violence against women interchangeably to refer to acts leading to physical, sexual or mental harm or suffering to women. This includes family and sexual violence (FSV) against women, which is the term commonly used to refer to such acts in PNG.

46. The disadvantages experienced by women in accessing economic opportunities reflect overlapping challenges at home, in the workplace and in communities. Gaps in education and skills, domestic obligations and inadequate family planning, a culture of male control, traditional social norms, and legal and institutional barriers to access economic opportunities, all interact and reinforce each other to limit women’s economic empowerment. These inequalities also limit women’s access to networks and information, impacting livelihoods and posing health risks. COVID-19 brought many of these challenges to the fore: for example, most female business owners were not aware of avenues to seek financial assistance during the pandemic¹³ and COVID-19 vaccine hesitancy has been reported to be significantly higher among women.¹⁴

47. This chapter aims to develop actionable recommendations to promote equality in economic opportunity in PNG. It begins by presenting the long-term gains that the country’s economy could reap by bridging the sizeable difference between men and women’s participation in better, more productive, employment. The chapter then outlines key gender gaps and challenges that limit women’s productivity and access to better jobs. It concludes with a set of recommendations, actionable in the short-term, which would enable a higher share of PNG’s growing population to enter income-generating activities and allow PNG’s economy to benefit from an increasing and more productive talent pool.

Improving women’s access to paid work and better jobs can foster sustainable growth

48. In PNG there are significant gender gaps in paid employment, in a context of low engagement in the labor market for both women and men. Only 31 percent of women (aged 15-49), compared to 48 percent of men in PNG are in the labor force (either working or looking for work—whether formal or informal), based on the latest available data (2016-2018 Demographic and Health Survey).¹⁵ Compared to structural peers,¹⁶ PNG displays a lower-than-average female labor force participation (LFP) rate and a higher-than-average gender gap (Figure 38). A large segment of the population, especially women, are engaged in a range of agricultural and/or subsistence economic activities not captured in this measure, in contrast with the estimates using 2010 data.¹⁷ However, all surveys confirm that a large share of women in PNG do not engage in paid work. In 2016-18, only 45 percent of employed women and 51 percent of employed men worked mainly for pay.¹⁸

¹³ CIPE. 2021. COVID-19’s impact on women-owned and operated MSMEs in PNG.

¹⁴ World Bank. 2021. PNG High-Frequency Telephone Survey.

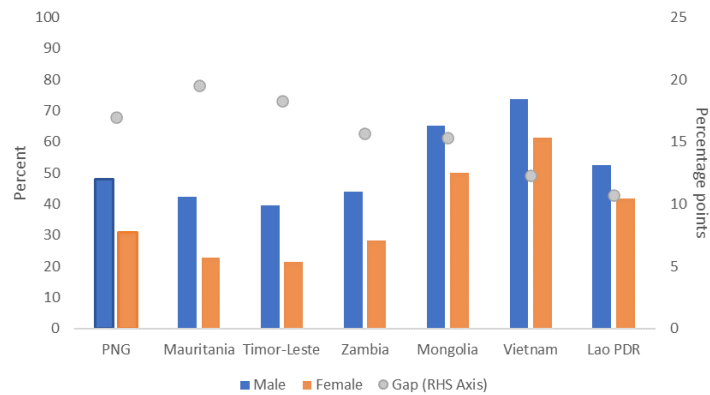
¹⁵ Since the definition of employment used in the DHS excludes purely subsistence activities, the gender gap in LFP should be interpreted as a gap in access to income-generating opportunities only.

¹⁶ Structural peers refer to countries whose economies share a similar structure to that of PNG (including heavy dependence on natural resources expressed as more than 10 percent of GDP and classified as lower-middle income). Aspirational peers are countries which had higher reliance on natural resources between 1980 and 1990 and are now classified as upper-middle income.

¹⁷ Estimates using the 2010 Household Income and Expenditure Survey indicate a very similar LFP rate for men, but a higher female LFP of 48 percent. This is due to different definitions of employment. The DHS is less likely to count subsistence activities as employment. It is better aligned with ILOSTAT’s updated definition and estimates across countries.

¹⁸ Working for pay is defined as working solely for cash earnings, as opposed to in kind, cash and in kind or work without pay.

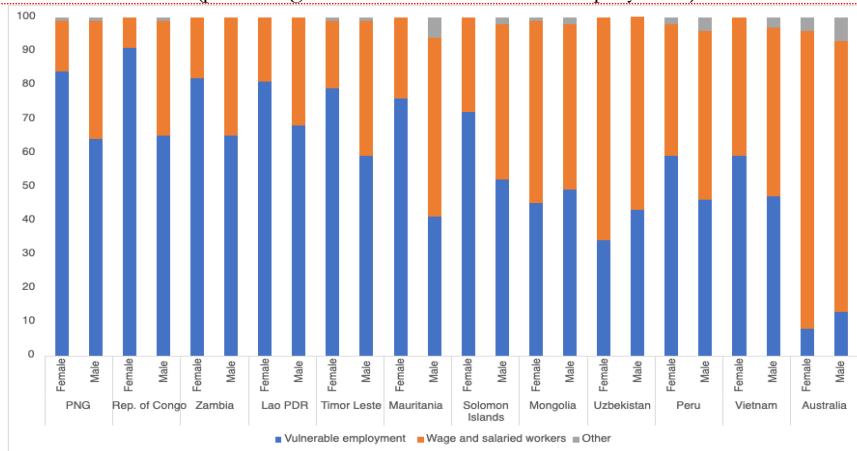
Figure 38: Labor Force Participation Rate
(percent, by gender)



Source: For PNG, World Bank calculations (for those older than 15, summing employed (currently working) and unemployed (looking for work), divided by total population) using DHS data from NSO, 2019. Other countries from ILOSTAT, latest available year using the updated 19th ICLS definition of employment, which excludes purely subsistence activities.

49. Not only are women less likely to work for pay, but when they do work they are overwhelmingly in less secure and more informal employment. As many as 84 percent of working women, compared to 64 percent of men, are engaged in vulnerable forms of employment: they are working either as own-account workers or as contributing family workers, which is often characterized by less predictable and inadequate earnings and lower productivity (World Bank, 2022).. In PNG, very few women are in wage employment. While globally women are more likely to be in less secure forms of employment, the extent of this disadvantage is starker in PNG than in all structural peers (Figure 39). The rate of waged employment out of total employment for men in PNG is also significantly lower than for most structural peers—and less than half the rate of aspirational peers like Vietnam.

Figure 39: Wage and vulnerable employment
(percentage of total female or male employment)



Source: For PNG, DHS 2016–2018. For other countries, ILOSTAT latest available year.

50. Gender equality in accessing economic opportunity is not only a development objective in itself, but it could also result in 20.8 percent higher GDP growth in the long run. Increasing women’s employment so that it equals men’s, both in terms of quantity and quality of employment, can spur economic growth. Using the DHS data and adopting a methodology similar to Pennings (2022), PNG’s GDP per capita could be 18.4 percent higher in the long run¹⁷ if women’s employment rate was to match men’s. Once accounting also for the gender employment gap in terms of better-quality jobs, gains to long run GDP per capital of closing the gender

employment gap (captured by the full Gender Employment Gap Index) could be as high as 20.8 percent. This measure involves weighting the employment gaps of what is termed “better employment” such as jobs that pay in cash rather than in-kind, and managerial roles, and “other employment”.

Table 3: Gender Employment Gap Index (GEGI)

Employment-Population Ratio		Basic GEGI (%)	Better Employment Ratio		Better Employment Gap	Other Employment Ratio		Other Employment Gap	Full GEGI (%)
Male	Female		Male	Female		Male	Female		
0.45	0.31	18.39	0.23	0.14	25.33	0.22	0.18	0.12	20.81

Source: DHS data from NSO, 2019.
Note: Methodology adapted from Pennings (2022). GEGI methodology is particularly well-suited for countries where more sophisticated measures are limited by data paucity. His paper describes the advantages and limitations of the approach.

51. The estimated GDP gains for PNG are similar its peers. Kiribati, Tonga and the Federated States of Micronesia could also gain around 20 percent in GDP per capita in a generation, whereas the Marshall Islands’ figure is almost 40 percent (Pennings, 2022). Among broader structural peers, PNG is similarly placed: potential growth gains from more equitable employment are lower in Lao PDR and Mongolia, similar in Uzbekistan, but higher in Zambia and Mauritania (ibid.). While these estimates for PNG are similar to the average for these other countries, they are not directly comparable to the estimates in Pennings (ibid.), due to differences in sample age composition and the definition of better employment.¹⁸ They are likely to underestimate the potential gains in GDP per capita from closing the gender gap in employment in PNG.

4. Multiple barriers need to be overcome

4.1. Expanding women’s participation, across economic sectors and to mid-skill occupations

52. Employment patterns differ for men and women in Papua New Guinea. Women work predominantly in services and are starkly underrepresented in industrial employment, where most jobs are paid.¹⁹ Among paid employees, women are 35 percentage points less likely to be in industrial jobs in urban areas and 25 percentage points in rural areas (Figure 40). Women represent about 12 percent of direct mining employees,²⁰ with legal barriers in both the Employment Act and the Mining Safety Act limiting the type of work women can perform in the sector. Although women are underrepresented at all levels, this is especially so in technical positions. Similar to Solomon Islands and Vanuatu,²¹ female paid workers are more likely to work in both high-skill and low-skill occupations, with men overrepresented (relative to their share of the employed population) within medium-skill occupations (Figure 41), where most jobs are found.²² This is associated with gender norms determining suitable positions for women in professional occupations: women represent about 46 percent of teachers and 50 percent of health personnel (Department of Education, 2020; World Bank, 2017). At the same time, women’s prominent role as street and market vendors contributes to their higher likelihood to work within elementary occupations.

¹⁹ 83 percent of workers in industry report being in paid employment, compared to 68 percent of workers in services, and only 13 percent of workers in agriculture (2016-2018 DHS).

²⁰ EITI PNG 2019 Annual Report.

²¹ ILOSTAT latest national survey estimates of employers and employees by sex and occupation.

²² In the DHS, 65 percent of jobs are in the medium-skill group based on ISCO-08, which includes skilled agricultural employment.

Figure 40: Men and women's total employment by broad sector in rural and urban areas (percent)

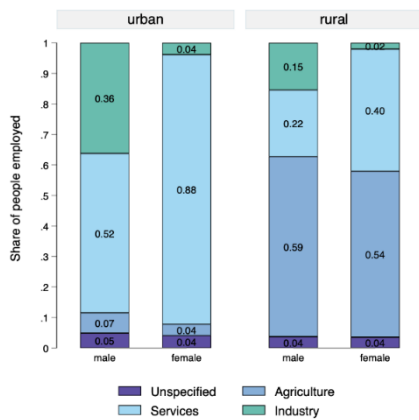
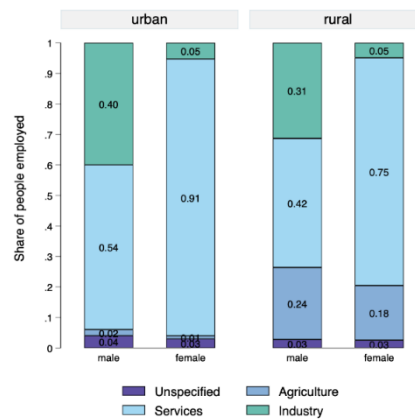


Figure 41: Men and women's paid employment by broad sector in rural and urban areas (percent)



Note: Broad sector in concordance with ISIC-Rev 4: Agriculture= Agriculture, Forestry and Fishing; Services= Trade, Transportation, Food and Accommodation, Business and Administrative Services, Health, Education, Arts and Entertainment, Professional and Scientific, Public Services and Other Services, Industry = Manufacturing, Construction, Mining and Quarrying, Water and Sewerage, Electricity and Utilities.

Source: Sample of men and women aged 15-49 from PNG DHS 2016-2018.

53. Occupational segregation is most prominent within the industry and services sectors, where the range of available occupations is more diverse. This is partly due to women's underrepresentation in the public service, where they occupy only about 36 percent of positions, and only about 25 percent of leadership positions in 2019 (Equity Economics, 2021). Within the industrial sector, where most jobs are in manufacturing, construction and mining, women are slightly more likely to hold high-skill jobs, but much more likely than men to work in elementary occupations, where they perform unskilled manual tasks such as making gabion baskets and rip raps in road construction or alluvial mining activities within extractives. A sizeable share of women's paid employment in medium skilled occupations in industry is concentrated in manufacturing, where women account for more than 80 percent of jobs in tuna processing factories in the country (Sullivan and Bidesi, 2008).

Figure 42: Occupational segregation in paid employment by type of occupation (percent of employed men or women)

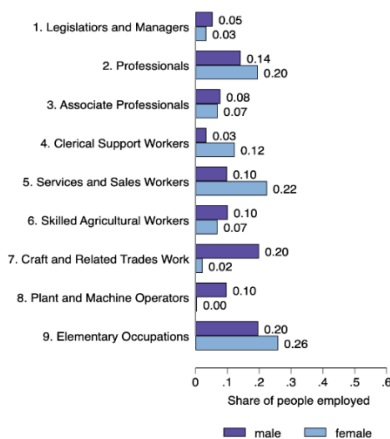
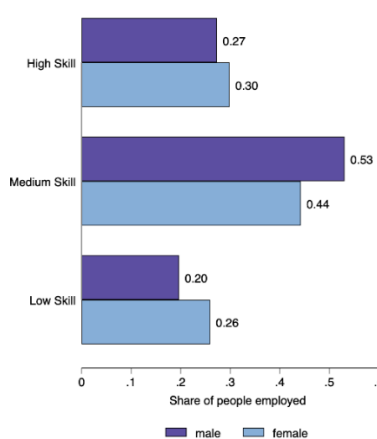


Figure 43: Occupational segregation in paid employment by skill level (percent of employed men or women)



Note: Occupations and skill levels according to ISCO-08. *Source:* Sample of men and women aged 15-49 from PNG DHS 2016-2018.

Figure 44: Occupational segregation by skill level: Agriculture

(percent of employed men or women)

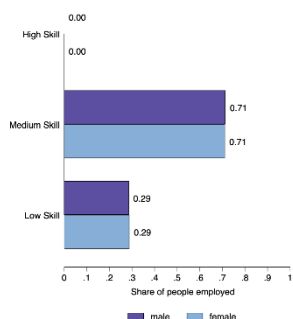


Figure 45: Occupational segregation by skill level: Industry

(percent of employed men or women)

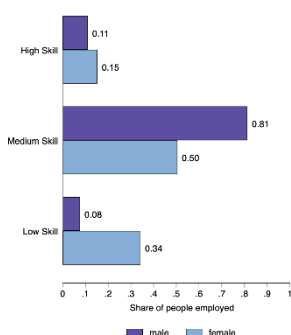
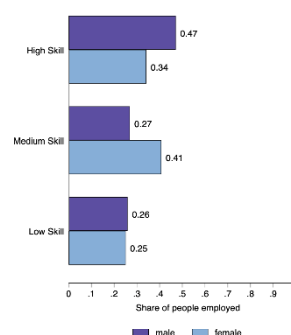


Figure 46: Occupational segregation by skill level: Services

(percent of employed men or women)



Note: Occupations and skill levels according to ISCO-08.

Source: Sample of men and women aged 15-49 from PNG DHS 2016-2018.

54. Creating more formal private sector jobs, and equipping men and women with the right skills for these jobs, remains an overarching priority for PNG. Growth in formal private sector employment has failed to keep pace with the rapid expansion in the working-age population. Less than 10,000 formal sector jobs are created annually, which leaves many young people searching for alternative forms of employment in the country²³ or pursue opportunities abroad through existing labor mobility schemes. Formal employment only accounts for 16 percent of total employment and is mostly found in the National Capital District and areas with a strong mining industry.²⁴ There is also a skills mismatch between existing job opportunities and PNG’s labor force. Nearly three quarters of formal job openings in early 2020 required at least TVET or tertiary education, while less than 5 percent of the 25 to 45-year-old labor force has such qualifications.²⁵

55. Laws intended to protect women may instead entrench social norms and become barriers affecting their employment opportunities.²⁶ In particular, barriers exist on women’s freedom to engage in work that: (i) is considered too physically arduous; (ii) entails working underground; or (iii) involves night-time hours, with some exceptions. These are reflected in the Employment Act, 1978, and the Mining Safety Act 1977. Exception to legal impediments to night work exist for example for health workers or management positions; and overall there are indications of weak enforcement of such prohibitions.²⁷ However as a result, women find themselves legally excluded from opportunities in highly paid industries such as mining and manufacturing.²⁸ PNG is the only country in the Pacific and one of the four countries among its structural peers to have these discriminatory clauses in its law. Sex-based discrimination also exists in some legal provisions governing public sector employment, reflected in specific laws (see Box 2).

²³ Kanaparo, Rayel, Imbun, and Jacka (2014).

²⁴ Jones and McGavin (2015).

²⁵ World Bank. 2020. Pacific Island Countries in the Era of Covid-19: Macroeconomic Impacts and Job Prospects.

²⁶ World Bank (2016).

²⁷ See note under Table 1. Restrictions are identified in the Employment Act, together with a list of excepted professions and circumstances. These restrictions are not reported in WBL, which is likely an oversight.

²⁸ World Bank, PNG Systematic Country Diagnostic, 2018.

Box 2: Equality in Employment in the Public Sector

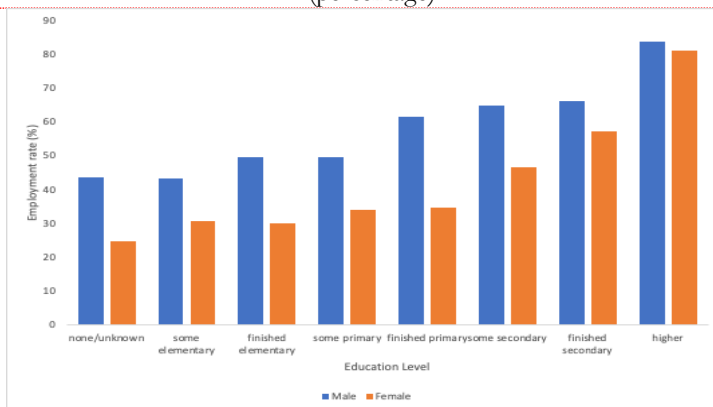
The Public Services (Management) Act of 2014 maintained a discriminatory clause in its section 36(2)(c)(iv). The said clause allows calls for candidates to specify that “only males or females will be appointed, promoted or transferred in particular proportions”. Section 20.64 of General Order No. 20 and section 137 of the Teaching Services Act 1988, are also discriminatory to women, because they specify that a female official or female teacher is only entitled to certain allowances for their husband and children if she is the breadwinner. A female officer or female teacher is regarded as the breadwinner if she is single or divorced, or if her spouse is medically infirm, a student or certified unemployed. The International Labour Conference in its 2021 session urged the government to take expeditious steps to review and amend these laws to bring it in line with the requirements of the Convention. It also requested the government to provide information on any measures taken under the Gender Equality and Social Inclusion (GESI) policy and action plan and any progress made to ensure equality of opportunity and treatment between men and women in the public service (Observation (CEACR) - adopted 2019, published 109th ILC session (2021).

Measuring the Impact of GESI in PNG Public Sector (Equity Economics, 2021), reviews progress since the 2012 GESI Policy for the public sector was introduced and makes the case for potential gains from fully implementing the policy. Despite increased support for the agenda, valuable initiatives such as training, and a diverse cohort of junior public servants, the report identifies enduring challenges: inconsistent implementation of GESI policies across national departments and levels of government, high GBV rates impacting work and health, and low representation of women in senior leadership. It makes a strong case for stepping up efforts in delivering GESI Policy commitments, paving the way for other employers to do the same.

4.2. Keeping girls in school and supporting their transition from school to work

56. Getting more women into better paid employment requires them to be adequately skilled. Education in PNG is positively correlated with employment for both men and women. Although for every level of education men’s employment rate is higher than women’s, the gender gap narrows for higher education levels. Returns to education for women increase rapidly past the primary school level. For both men and women, pursuing higher levels of education significantly increases the likelihood of being employed: 84 percent of men and 81 percent of women aged 25 to 49, who have some higher (post-secondary) education are employed, compared to 44 percent of men and 25 percent of women with no education (ibid.).

Figure 47: Employment rate by education and gender, age 25-49
(percentage)



Source: NSO, 2019. Population 25+ chosen, as they are most likely to have completed schooling.

57. While PNG has achieved gender parity in elementary enrolments, gaps increase from primary to secondary level. Girls and boys enrol at equal rates in elementary education (years 1 and 2), with near parity in primary schooling as well (years 3 to 8) (Figure 48). However, a sizeable gap remains in secondary enrolment rates, with girls more likely to drop out of school at key transition points. In 2018, there were 7 girls for every 10 boys enrolled in secondary school.¹² While some progress has been made at the primary level, PNG lags significantly behind its regional peers in attaining gender equality in secondary education (Figure 49).

Figure 48: Gross enrolment rates and gender parity across educational levels (percent)

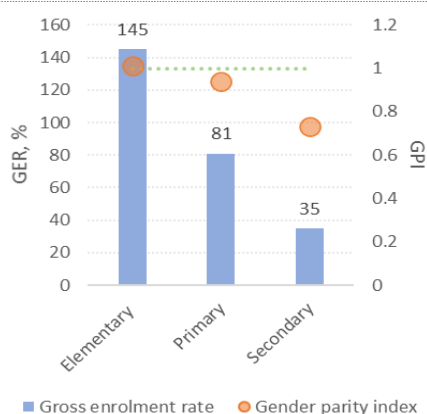
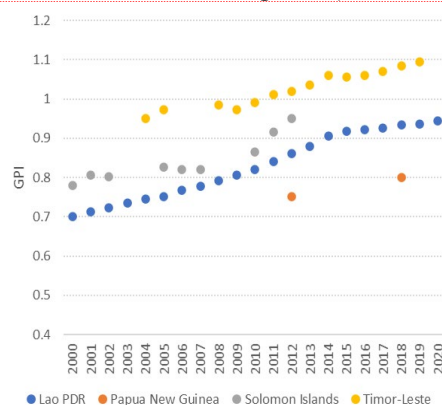


Figure 49: Gender parity index in gross enrolment rates in secondary education over time, PNG and regional comparators (percent)



Note: Elementary education includes grades 1 and 2, primary includes grades 2 to 8, and secondary includes grades 9 to 12. Sources: (left) 2018 EMIS data from Department of Education; (right) UNESCO Institute for Statistics

58. Girls interrupt their education early due to lack of safety, financial constraints, poor infrastructure and domestic obligations. Girls mostly drop-out from school due to rigid gender norms and expectations on girls and women, with household chores and a lack of family support making continued attendance difficult (AGE, 2004). Parents tend to devalue the returns to girls' relative to boys' schooling, which makes them less prone to investing in daughters' education (Edwards, 2015). This, along with indications that the introduction of the Tuition Fee Free Policy in 2012 led to higher increases in girls' enrolments (Edwards, 2015), underscores the importance of providing free basic education to ensure universal access. Poor school environments exacerbate female drop-out. Many girls report feeling unsafe in school due to harassment from older male peers and male teachers, which is exacerbated by poor infrastructure, such as lack of adequate sanitary facilities (Edwards, 2015; Department of Education, 2020).

59. These challenges are even greater in rural areas. Here, overall attendance is lower and gender gaps are larger (Figure 51). In addition to higher rates of early marriage and pregnancy,²⁹ domestic expectations for girls in rural areas are also often more pressing than in urban areas: women's involvement in subsistence agriculture is essential to keeping families and communities fed and their household obligations significantly outweigh men's (FAO, 2019; World Bank, 2018).

²⁹ 20 percent of rural out-of-school girls aged 15 to 18 cited getting married or pregnant as the main reason for leaving school, compared to 14 percent of out-of-school girls in the same age group in urban areas (2016-2018 DHS).

Figure 50: Male and female students' school attendance, Urban
(percent of total population at age)

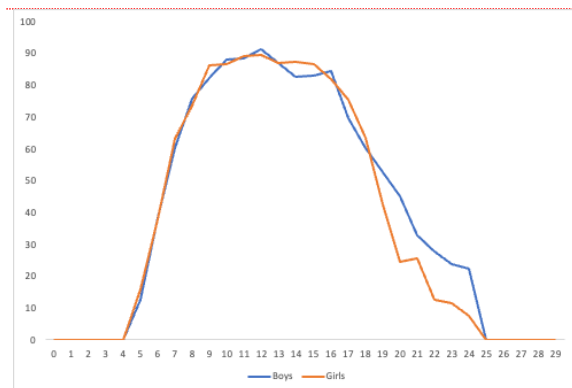
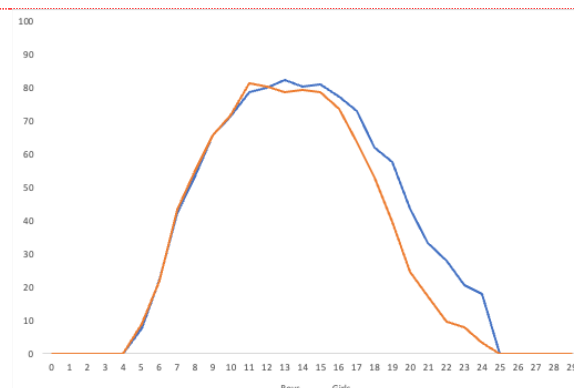


Figure 51: Male and female students' school attendance, Rural
(percent of total population at age)



Sources: NSO, 2019.

60. Addressing gender norms on suitable study fields for girls and tackling harassment can advance equality in post-secondary education. Beyond secondary schooling, women are less likely to access tertiary education in both urban and rural locations. In 2016, only about 40 percent of students across surveyed higher education institutions were female (Department of Education, 2020). Few women enrol in scientific, technical and vocational disciplines. In 2014, only 11 percent of students at Port Moresby Technical College and just 6 percent of Mt Hagen Tech students were female (Horne et al, 2014). Women made up about half of business and hospitality students, but only around a third of total Technical and Vocational Education and Training students in the country (ibid.). Strong norms about what constitute appropriate occupations deter girls from pursuing technical disciplines early on. In addition, lack of appropriate and secure accommodation for girls can act as deterrent to participating in technical and vocational training for women (ABT, 2020).

61. Young women are more likely than young men to be not in employment, education or training (NEET). 40.7 percent of women aged 15-24 in urban areas and nearly half in rural areas were not engaged in any education or employment, compared to about a third of young men in both urban and rural areas, according to DHS data. Most school leavers—young women and men—when working at all, do so in the informal economy, often as farm laborers and in subsistence or semi-subsistence agriculture. Working conditions tend to be poor and incomes low and volatile. Considering these challenges, the National Employment Policy 2021-2031 sets to strengthen public works schemes to help maximize local job creation, improve career guidance, provide entrepreneurship training and greater access to finance for youth owned businesses.

62. While all school leavers face challenges in entering employment, young women are at a greater disadvantage. Young women living in urban areas face specific challenges related to lack of safety and rigid normative environments. Fear of harassment, theft and violence affect young women's access to public spaces in PNG's urban centers (Spark, 2014). Further, women who still take advantage of opportunities for education or training may face additional constraints related to gender norms. During the World Bank-supported Urban Youth Employment Project, women reported numerous obstacles to participation, including household chores to perform before leaving, delays in performing such chores, jealous husbands turning up at work sites and forcing wives' withdrawal, and a lack of childcare availability (World Bank, 2018). Young women also face exacerbated challenges in accessing jobs through international labor mobility programs, similarly related to lack of employment experience and soft skills, documentation costs and travel.

Figure 52: Urban and rural youth (15—24) not in employment, education and training (NEET) and youth unemployment rates (percent)

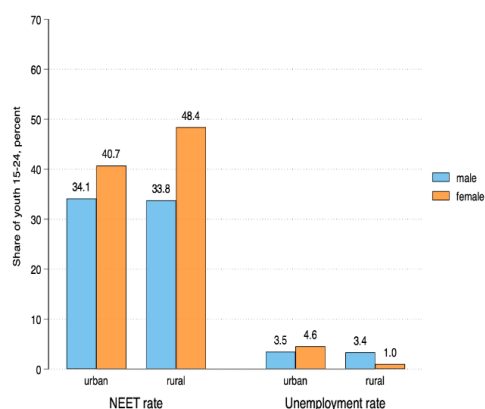
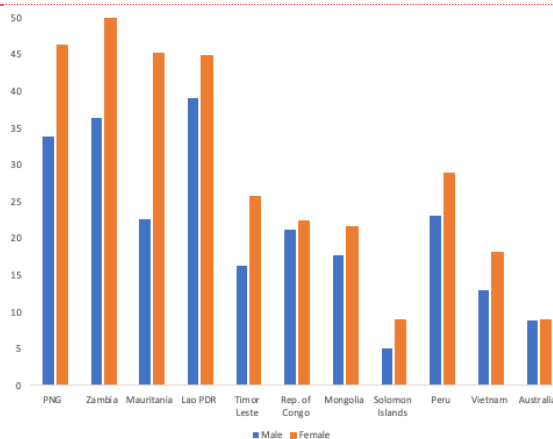


Figure 53: Share of youth (15-24) not in education, employment or training (percent of male/female youth population)



Sources: NSO, 2019.

Box 3: Lessons from the PNG Urban Youth Employment project

The Urban Youth Unemployment Project (UYEP), implemented by the National Capital District Commission (NCDC) and now in its second phase, aims to promote social inclusion and invest in youth in urban PNG. It is illustrative of both the opportunities and challenges in including young women in projects that foster economic opportunities. Since 2011 the project has reached over 18,500 at risk youth by providing either short-term public works employment or classroom and on-the-job training (NCDC, 2018). To address pervasive gender inequality, gender parity in participation has been a priority for the project, which has also focused on providing education on issues such as GBV and gender sensitization training for staff and participants.

Some key lessons emerged from UYEP’s first phase. Keeping families informed proved crucial to mitigate family pressure and worries about safety and cultural expectations. The risk of violence from partners at home also constrained female participants, calling for a more robust and nuanced approach to addressing GBV, as opportunities for economic empowerment alone were not enough to help women remove themselves from violent situations (NCDC, 2018). Further strategies adopted included strengthening identification and response interventions, in collaboration with specialized local organizations.

Though not achieving parity given the complexity of the context, the first phase of UYEP was successful in engaging a large share of women (41 percent), who benefitted from securing employment within six months of participation in the project (World Bank, 2020). Young women showed a higher propensity to complete the training than men, pointing to the project’s success in engaging women and that they were motivated to pursue economic opportunities (Voigt-Graf, 2017).

4.3. Improving access to inputs for female farmers and micro-entrepreneurs

63. Women play a critical role in agriculture, but they earn less than men from the sale of crops.

Nearly 38 percent of women’s and 44 percent of men’s total employment in PNG is in agriculture.³⁰ Nevertheless, female-headed households who engage in market-oriented agriculture earn less than male-headed households. Female-headed households made on average 26 percent less than male-headed households over the past year

³⁰ Estimates derived using latest available data from the 2016-2018 PNG DHS. These estimates fall between earlier ones from the 2010 HIES (about 15 percent for women and 25 percent for men) and the 2011 Census (76 percent for women and 62 percent for men). While the DHS sample includes only population aged 15-49, these discrepancies in earlier estimates show the need for improved nationally representative sex-disaggregated data collection in agriculture, and of labor market activity overall.

from the sale of cash crops and earned 43 percent less in the last two weeks from the sale of food crops (NSO, 2019).³¹

64. Several factors, differing across regions and crops, are driving this gender inequality. Female-headed households operate on smaller plots, are less likely than male-led households to sell any crops (both staple or cash) and to grow key cash crops such as coffee, vanilla and betelnut (Table 4). A range of in-depth studies on agriculture in PNG provide nuanced insights on women and men’s engagement in the sector and specific barriers to productivity. Numerous qualitative investigations shed light on social and gender norms and beliefs affecting women’s activities in the sector (World Bank, 2014). Beyond those, some other key factors drive unequal agricultural productivity, outlined below.

Table 4. Comparing Female- and Male-Headed Agricultural Households in the Demographic and Health Survey

	Male Household Head	Female Household Head	Difference and Significance
Share of total households (%, N=13,370)	82.8	17.2	
Sold any crops (%)	55.4	46.7	8.7***
Grew cash crops (%)	62.8	50.0	12.8***
Hectares of agricultural land (Average)	4.3	3.1	1.2***

***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Source: 2016-2018 DHS.

65. First, access to productive inputs such as land and paid labor is more limited for women farmers.

Only about 40 percent of women own land compared to 60 percent of men. Among those who do own any land, half of the men own it alone as opposed to jointly, whereas just 33 percent of women do (NSO, 2019). A survey conducted among rural households in four regions in PNG shows that women who own land are also likely to own or farm less of it (IFPRI, 2019). While only about 5 percent of men who farmed land only farmed a single plot, close to 15 percent of female landowners did so. Women are also less likely to hire extra help with agricultural work, with only 34 percent doing so compared to 39 percent of men in the four regions covered by the survey.

66. Despite equal ownership and inheritance rights over immovable property under the law, women’s control over household resources is constrained. The Land Act (1996) includes some provisions applying to customary land (e.g. registration of this land), but it does not cover other transactions, for example how unregistered customary land is managed within and between customary land holders, making women’s land rights more vulnerable. Women’s ability to enforce rights to land and property, or to claim income from cash crops or land leases, can be limited. More broadly, women’s relationship with the state is mediated through family and clan, resulting in state mechanisms being less able to respond to a range of inequities that they face.

67. Second, women concentrate in the lower-value crops cultivation or lower-value activities of cash crop value chains. Men’s work is more focused on the main cash crops of PNG (coffee and cocoa), whereas women spend more time on other agricultural activities. When women are involved in coffee and cocoa production, it is at the lower-value stage of the chain, such as harvesting and the sale of wet beans as opposed to the more profitable activities of drying and selling dry beans (World Bank, 2018). Although their sales bring in less income than the male-dominated cash crops, women’s agricultural work tends to be focused on the production of food crops, such as vegetables and root crops, which provides greater food security to their families (Chang et al., 2010). Production of the higher status and value cash crops is generally seen as a male-domain

³¹ These results are purely descriptive and do not control for differences between female and male-led households such as household size or geographic location.

(Nordhagen, Pascual & Drucker, 2021). These patterns in agricultural activities extend both to women within households engaged in agriculture and to female-headed households.

68. The constraints faced by female farmers lead to sizeable gender gaps in agricultural productivity and could result in a loss of up to 5 percent of overall agricultural output in the country.^{32,33} Female-headed households engaged in agriculture produce up to 62 percent less per hectare, compared to male-headed households with similar-sized landholdings. Table 5 shows that this gap could be reduced significantly by improving women’s access to higher value cash crops (such as cocoa, coffee and vanilla) and agricultural inputs such as tools, extension services and hired labour. The value of agricultural output could increase by 2 to 5 percent if the gap in productivity between female-headed and male-headed agricultural households were to close.³⁴

Table 5: Regressions by Different Specifications
dependent variable is log (value of agricultural production per ha)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Female Head	-.208 (.237)	-.62*** (.197)	-.331* (.17)	-.336* (.188)	-.155 (.164)	-.272 (.164)	-.158 (.189)
Observations	771	771	771	771	771	771	771
R-squared	.001	.176	.295	.296	.525	.327	.537
Land Size	No	Yes	Yes	Yes	Yes	Yes	Yes
Regional FE	No	No	Yes	Yes	Yes	Yes	Yes
Household Characteristics	No	No	No	Yes	No	No	Yes
Crop FE	No	No	No	No	Yes	No	Yes
Agricultural Inputs	No	No	No	No	No	Yes	Yes

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

69. Outside of agriculture, non-farm enterprises are a primary source of employment for many women in PNG and supplement the incomes of many more. 86 percent of women in urban areas and 33 percent of women in rural areas are primarily employed in the services sector. Looking only at those working for cash (rather than in-kind or unpaid) then services make up 80.4 percent of all women’s paid employment (NSO, 2019). For many rural women who primarily work in agriculture, taking part in informal entrepreneurial activity in the services sector, such as selling excess produce or offering crafting services, is an important way to supplement their family income and insure against risk (Schmidt, Mueller, and Rosenbach, 2020).

70. Informal microenterprises in the services sector, focused on hospitality and trade, account for most of women’s income generating activities in the country. About two thirds of informal workers in PNG engage in retail trade, with 80 percent of informal market vendors estimated to be female (Department for Community Development and Religion, 2019). In the capital of Port Moresby most market vendors are married women aged 31 to 50, and their work supports not only their families, but the wider community too, providing food and other goods to urban residents. However, women wishing to make a living this way face many barriers.

³² Estimates vary in level of statistical significance and control for Δ comparison between male- and female-headed households’ value (in Kina) of agricultural production per hectare of land represents a standard measure of agricultural productivity (Eurostat, 2022). The value of each crop produced by the household is established using median purchase prices reported by households in the expenditure module. Combining these prices with production quantities reported by households, the raw (unadjusted) productivity gap between male- and female-headed households, as well as the adjusted gap (controlling for land size and different conditions across regions) are derived.

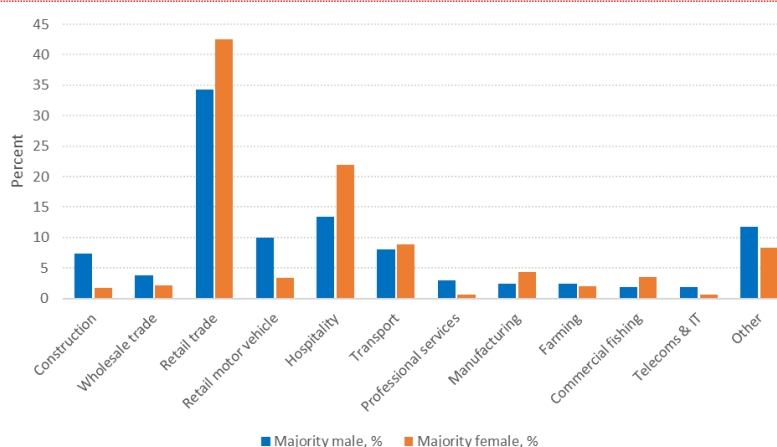
³³ Based on analysis of IFPRI’s Household Survey of Food Systems. 2018.

³⁴ Applying the costing methodology used in World Bank. 2015. *The cost of the gender gap in agricultural productivity in Malawi, Tanzania and Uganda*. The variation comes from differing estimates of how much land is farmed by women.

These marketplaces often lack adequate facilities and services such as seating, toilets, and shelter from weather, and in some cases are sites of crime or harassment.

71. Despite their prominent role operating informal microenterprises, women’s representation among small and medium-sized business owners in both the formal and informal sectors remains low. Data on female’s participation in entrepreneurship is scarce, but it appears that women’s self-employment activities remain concentrated at the informal microenterprise level. Among small and medium enterprises (SMEs), only 9 percent of formal SMEs and 16 percent of informal SMEs have majority female ownership, with close to half of female-owned SMEs operating in the informal sector, compared to 30 percent of male-owned ones (Mishra and Smyth, 2016; Mishra, Odhuno and Smyth, 2017). 80 percent of formal SMEs owned by women and 72 percent of SMEs majority-owned by men are concentrated in the services sector, with this share likely to be even higher in the informal sector (Figure 54; Mishra and Smyth, 2016).

Figure 54: Distribution of formal male- and female-owned SMEs across sectors.
(percentage)



Note: “Majority female” is defined as more than 50 percent female ownership; “Majority male” includes businesses with equal shares of male and female owners. *Source:* Authors’ calculations based on Tebbutt Research nationally representative survey data presented in Mishra and Smyth (2016).

72. Social and gender norms affect women’s ability to start and grow a business, driving part of the gender gap in business ownership. Married women are likely to need their husband’s permission to start a business, which he may be unlikely to give if he thinks it will take her away from work in the home. This, combined with embedded norms around control, and violence as a means to perpetuate that control, make it hard for women to consider establishing a business. Because of these barriers, women who are able to succeed in business in PNG are more likely to be those with supportive husbands, family or female friends, be single/divorced/widowed, well-educated and own their own land (Druzca and Hutchens, 2008).

73. There are no legal restrictions to women registering or owning a business, but women face greater challenges in accessing information and networks. The low uptake in online business registration, especially among women, indicates potential lack of awareness and low levels of digital literacy. Registration processes can be complex, involving approvals from multiple bodies.

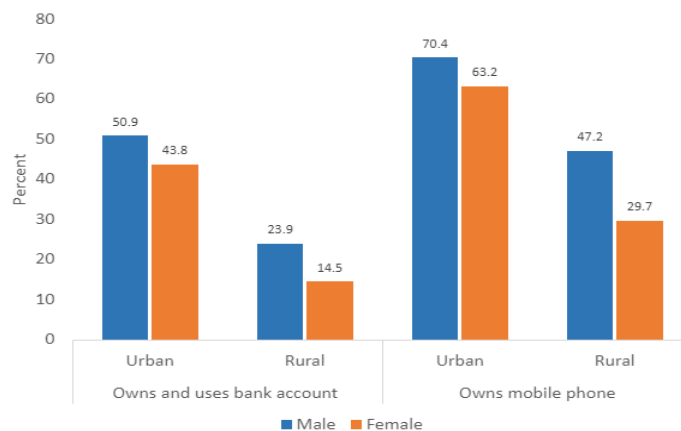
74. Women’s domestic roles also prevent them from strengthening networks, considered critical to succeed in business. When asked about their barriers to doing business, women SME-owners were more likely than men to see lack of access to professional business services as an obstacle (Mishra, Odhuno, and Smyth, 2017). This may reflect women’s lack of professional networks, which is a common barrier for female

entrepreneurs globally (Dodd and Keles, 2014) and in PNG in particular women’s domestic obligations give them less time to dedicate to building such networks (Mishra and Smyth, 2016).

75. Access to finance is a barrier for both men and women in business, but the challenge is particularly acute for women. Women formal SME-owners in PNG are just as likely as men to cite access to finance and capital from banks as a barrier to business (Mishra, Odhuno, and Smyth, 2017). Low numeracy and literacy (35 percent among rural women versus 20 percent among rural men could read even part of a sentence) and limited opportunities to discuss with peers and communities limit women’s awareness of financial services. A greater pressure to meet financial obligations from the wantok system affect female entrepreneurs more than men (Druzza & Hutchens, 2008). As a result of these disadvantages, less than 7 percent of women borrow from commercial banks or formal financial institutions, with most women borrowers thus reliant on money lenders charging high rates and carrying high risk of default (PFIP, 2020).

76. Across the country, women are less likely to own bank accounts or have control over household finances. 83 percent of men and 70 percent of women participate in decisions related to large household purchases (CSO, 2019). Women, especially rural women, are less likely to own (and use) accounts in formal financial institutions and mobile phones. The latter significantly limits opportunities to improve women’s financial inclusion through digital channels such as mobile money. Women are also more likely to lack the collateral necessary to obtain loans (such as land and immovable property) and must rely on husbands or others to act as guarantor, further excluding those without such support (PPSDI, 2015).

Figure 55: Men and women’s ownership of bank accounts and mobile phones in urban and rural areas (percentage)



Source: DHS 2016-2018.

77. Policy initiatives such as the Personal Property Security Act in 2016 were positive developments towards women’s financial inclusion. The Personal Property Security Act enabled the creation of a registry for moveable assets. Because women typically have very limited control over land, the expansion of the types of collateral that can be used for loans is extremely important to women’s access to credit. Monitoring results of this initiative could inform further progress. Women’s demand for financial services appears to be unfulfilled, while programmatic efforts to build financial literacy, trust in financial institutions, and tackle barriers to credit remain, despite recent efforts. Financial inclusion for women is also an important tool to potentially stimulate uptake of national IDs, considered critical for citizens to enjoy full access to a range of benefits and services. Possession of national IDs is currently low for all, but especially women, due to overwhelming non-legal barriers (GSMA 2019).

4.4. Supporting women in navigating trade-offs between household and market roles

78. The bulk of unpaid household work and care falls on women, which limits their time spent on income generating activities. Regardless of employment status, most women are expected to bear responsibility for unpaid work and care, such as cooking, cleaning, bringing firewood, child and elder care, as well as unpaid agricultural labor towards subsistence crops for the household. Disturbing the perceived main role of “a good wife” as main caretaker of the home and caregiver for children and relatives is often met with backlash from spouses, who perceive it as a loss of power and in many cases resort to violence to enforce gender roles (Eves et al, 2018). As a result, women spend close to 50 percent more time than men on unpaid domestic work every day (Figure 56). The gender gap in employment is significantly higher between married men and women at all ages, compared to unmarried ones (Figure 57). Further, lack of quality childcare for working parents can translate into high rates of absenteeism and turnover, low productivity, and challenges in recruiting skilled employees for employers. This challenge has been recognized by PNG’s National Stock Exchange, which has recommended a new listing standard requiring its members to disclose childcare policies and supporting employees’ return to work from family duties.

Figure 56: Men and women’s hours spent on unpaid domestic work and care on a typical day (number of hours)

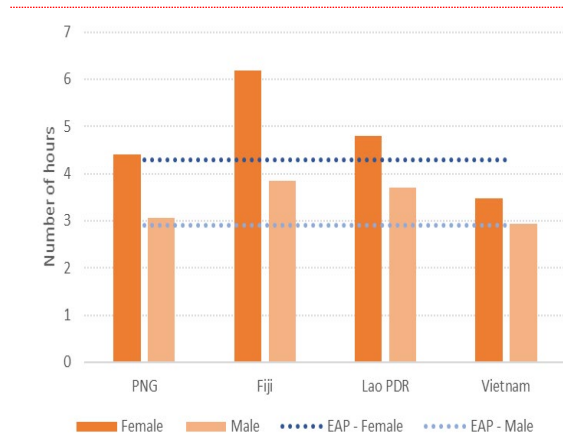
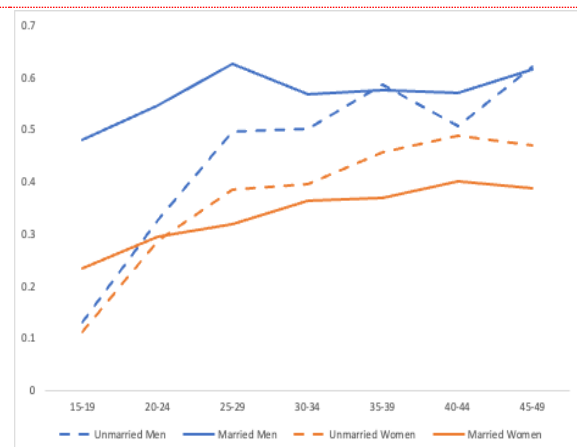


Figure 57: Employment-to-population ratio by age, gender and marital status (percent)



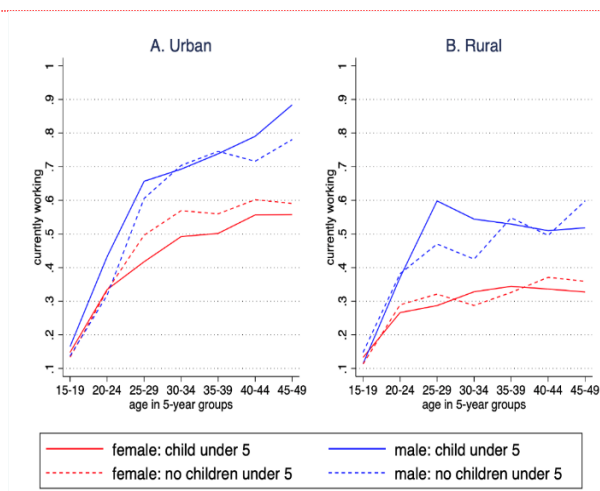
Sources: Survey on Gender Equality at Home; estimates for Lao PDR from 2020 and from the rest from 2021. Note: As this is an online survey and respondents are selected only among people with access to the internet, the estimates are likely to underestimate the extent of the gap between the time men and women spent on unpaid work. This is particularly the case in countries with lower access to the internet, especially for women.

Source: DHS 2016-2018. National Statistics Office. 2019. Notes: married = married or living with partner

79. Lack of paid maternity leave in labor legislation and limited access to early childhood education (ECE) restrict women’s ability to balance household roles with employment. The presence of children under age 5 in the household is associated with an increase in the gender gap in employment, particularly in urban areas where jobs are concentrated further away from home (Figure 58). In urban areas, existing early education centers are privately owned and are rarely affordable. In rural areas, if such centers exist, they are run on an ad-hoc basis by churches, NGOs and community groups. Only 17.4 percent of children aged 4 to 6 were enrolled in pre-primary education (Figure 59), with only about 9.5 percent of five-year-olds and 25.4 percent of six-year-olds³⁵ having actually attended any form of organized learning in 2018.

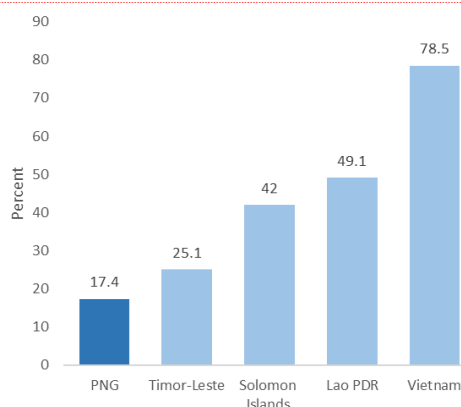
³⁵ Official school starting age is 7, when students enter the first grade of elementary school. At age 6 students attend preparatory school.

Figure 58: Gender gap in employment and presence of young children in the household, in urban and rural areas
(percent)



Source: NSO 2019.

Figure 59: Net enrolment rates in pre-primary education in PNG and EAP comparators
(percent)



Note: Pre-primary education age in PNG is 4 to 6 years, while it is 3 to 5 for the rest of EAP peers presented. Source: Latest national data from UNESCO Institute for Statistics (UIS) Country Profiles.

80. PNG does not guarantee adequate paid maternity leave and is one of a handful of countries in the world that do not provide for any paid leave at all. PNG laws do not cover paid or government-administered leave of at least 14 weeks for mothers, considered international good practice, nor do they prohibit the dismissal of pregnant workers.³⁶ Similarly, there is no provision for paid leave for fathers,³⁷ or availability of paid parental leave. In the Pacific, Fiji provides paid maternity (of 14 weeks on full pay)³⁸ and paternity leave³⁹ to its workers. Countries like Australia allow workers who are the baby's primary carer to get up to 18 weeks of paid leave, at the minimum wage, paid by the national government. While some provisions for paid maternity leave are available to public sector employees, the 1978 Employment Act has no such provisions for the private sector. Instead, female employees are entitled to unpaid maternity leave only, except where the employee elects to convert recreation or sick leave credits into paid maternity leave. According to the Act, the maternity period includes: the period necessary for hospitalization prior to confinement; six weeks following confinement; and an additional four weeks, if following confinement, the employee is sick and is unable to carry out her employment.

4.5. Addressing GBV risk to boost women's productive employment

81. The majority of women in PNG have experienced violence at the hands of an intimate partner, while one in ten women report experiences of non-partner sexual violence. Physical and/or sexual intimate partner violence (IPV) in PNG is almost twice the global average (Figure 60). The most recent DHS indicates that 62.9 per cent of ever-partnered women have experienced emotional (such as threats, insults and humiliation in front of others), physical and/or sexual violence by an intimate partner in their lifetime (NSO, 2019). While

³⁶ Dismissal of pregnant workers has been mentioned inadequately and therefore not explicitly prohibited in PNG's Employment Act 1978.

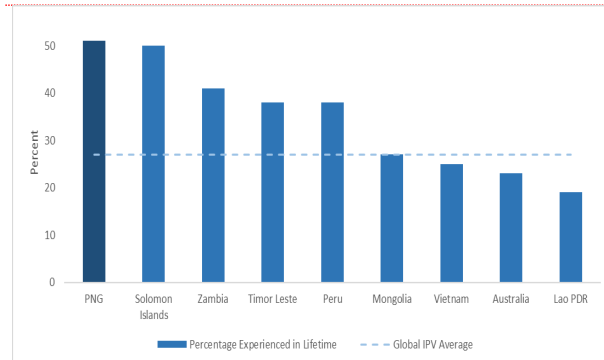
³⁷ Structural Peers (Mauritania, Lao PDR, Mongolia, Timor-Leste) and all aspirational peers (Australia, Peru, and Vietnam) have paid leave for fathers. Similarly, all these governments also pay 100 % of maternity benefits. Dismissal of pregnant workers is explicitly prohibited in most of the structural peers (except for Mauritania, Republic of Congo, and Solomon Islands), and all aspirational peers.

³⁸ Employment Relations Act of 2007 (amended as of 2020), § 101 – 103, Fiji.

³⁹ Employment Relations Act 2007, Sec. 101; Employment Relations (Budget Amendment) Act 2018 (No.23 of 2018), Sec. 6.

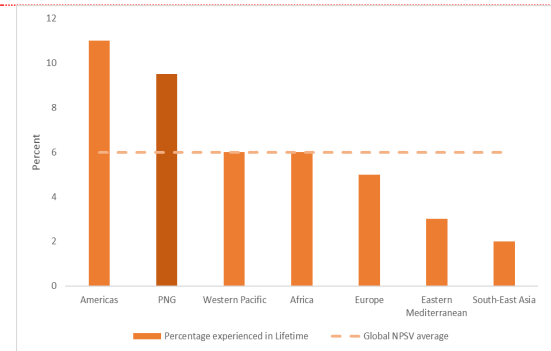
most violence against women in PNG is perpetrated by intimate partners, prevalence of non-partner sexual violence (defined as forced sexual acts) is also high relative to WHO regional and world estimates (Figure 61). The lack of an institutionalized method for the collection of administrative data on GBV has led to inaccurate and unreliable data collected by police and health centers, which contributes to difficulties in prevention and response planning.⁴⁰

Figure 60: Prevalence of IPV (physical and/or sexual) among structural and aspirational peers, share of women who have experienced intimate partner violence in their lifetime (percent)



Source: WHO modelled estimates based on most recent survey data, 2021. Note modelled estimates may differ from official national statistics.

Figure 61: Prevalence of non-partner sexual violence in PNG and low- and middle-income countries in WHO regions (percent)

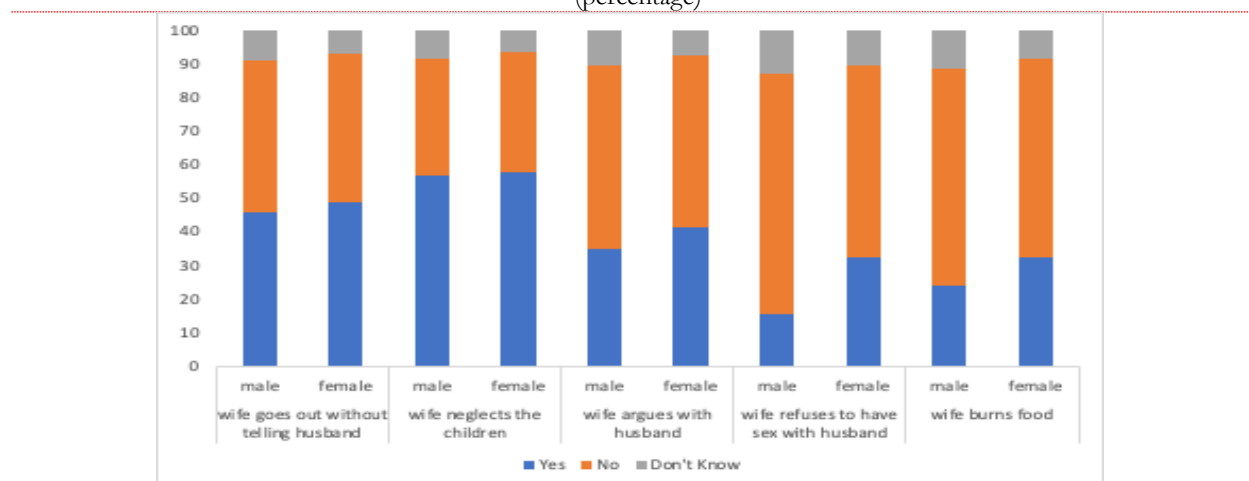


Source: Authors' calculations based on PNG DHS 2016-2018 (NSO) and WHO modelled estimates based on most recent survey data. WHO only reports regional (instead of country-specific) estimates for non-partner sexual violence.

82. The high prevalence of GBV in PNG is enabled by cultural and gender norms that legitimize such violence. Figure 62 below indicates the reported acceptability of a husband beating his wife in response to a set of perceived misbehaviors. For every scenario, a significant proportion of both men and women report believing violence is justified. When women and men were asked about the triggers of domestic violence, the two most common responses were sexual jealousy and wives not undertaking their expected duties such as childcare and housework (Hinton and Earnest, 2010). When women are perceived not to conform to their expected gender roles or gender norms, this can at times be used as excuse for men's choice to use violence, and women have been socialized to normalize this violence. Women are in fact more likely than men to report they believe that a beating is justified. This confirms the role of violence as both a product of inequitable norms and an instrument to reinforce gendered expectations on women.

⁴⁰ For example, while the official administrative data recorded 130 reported rape cases nationally in 2013, approximately 900 rape cases were reported to each of the Family Support Centres in Port Moresby, Maprik and Tari in the same year (World Bank 2019). The Spotlight Initiative has supported different state and non-state agencies in data strengthening interventions (Spotlight Initiative, Annual Report, March 2022).

Figure 62: Attitudes towards partner violence by gender: Is a husband justified in beating his wife in the following cases?
(percentage)



Source: DHS 2016-2018.

83. Gender-based violence takes the heaviest toll on survivors. Women’s physical and emotional wellbeing is directly affected, and this is alone sufficient to justify policy action. Women who survive violence bear the most costs, far exceeding costs incurred to employers or to the state (Walby, 2009). Survivors also face costs related to seeking medical and health support, legal advice and action, costs related to relocation and seeking refuge from violence, among others. Quantifying the cost to survivors is beyond the scope of this analysis and is limited by data constraints.

84. High GBV prevalence comes also at a sizeable economic cost: annual productivity losses associated with GBV-related work absenteeism alone amount to 0.5 percent of PNG’s 2020 GDP. Companies lose nearly 10 workdays per worker annually due to worker absenteeism, presenteeism and time spent supporting colleagues to respond to family and sexual violence (IFC, 2020). This estimate of GBV’s cost to the economy, based on the methodology described in Box 3, underestimates the actual productivity losses related to IPV, as it accounts solely for increased absenteeism. It does not consider long term costs incurred due to detrimental human capital effects or lower investments in physical capital due to higher consumption of health services, or productivity losses associated with presenteeism (reduced productivity while at work), turnover costs,⁴¹ spill over effects due to relatives’ and colleagues’ experiences of violence, other productivity losses affecting employers, communities, and government, or the cost of other forms of violence women experience inside or outside their home.⁴² In Vietnam, the costs due to both productivity losses and increased health expenditure from intimate-partner violence amounted to 1.4 percent of GDP (Duvvury et al., 2012).

85. Addressing the high prevalence of GBV has the potential to reduce workplace absenteeism. Employed women who have ever experienced IPV are twice as likely to report being absent from work in the past seven days (see Box 3).⁴³ This is consistent with ODI’s (2015) and IFC’s (2020) studies of significant losses in employee workdays due to GBV and shows that these costs are incurred on a national scale, regardless of sector and firm size. The magnitude of the effects of non-partner sexual violence (NPV) is much higher: women

⁴¹ <https://www.shrm.org/hr-today/trends-and-forecasting/special-reports-and-expert-views/documents/retaining-talent.pdf>

⁴² The current estimates amount to 4 to 6 days lost per employee in a year, which is equivalent to between 40 and 60 percent of the loss in terms of workdays estimated by IFC 2020. The IFC study is not representative of the entire economy, it was based on larger formal firms and accounted also for the costs of presenteeism and work time lost providing support for others. This could lead to both an underestimation of the actual effect (due to less flexibility to skip work in wage employment), or an overestimation (due to a higher number of days worked per year overall).

⁴³ Based on estimates from multiple regressions of employment outcomes on dummies denoting experiences of NPV and IPV.

who have experienced unwanted sexual acts by non-partners in their lifetime were close to three times more likely to report being absent from work in the week of the survey. The difference in absenteeism associated with IPV experienced in the 12 months preceding the survey is also positive, but smaller and not statistically significant. This confirms global knowledge indicating stronger absenteeism effects of IPV in the long run (Duvvury et al., 2013).

86. Working women are more likely to experience intimate-partner and non-partner sexual violence, but not if they are in high-skilled and better jobs. This link between experiences of violence and current employment status (Figure 63A) is consistent with evidence of backlash women face by their husbands for violating established household dynamics or arguments over earnings. It further showcases the limited options for escaping violent relationships for women in PNG, regardless of employment status (Eves, 2017a and 2017b). On the other hand, the link between non-partner sexual violence and employment is indicative of the risks women face in public spaces, on their way to work or at work. The positive correlation is concentrated among women with less than eight years of schooling (complete primary or below), while it disappears for women in better employment (paid employment outside of agriculture) and in high-skilled occupations.⁴⁴

Box 4: Women's work, GBV and the cost of GBV to PNG's economy

This box examines how employment outcomes (employment status, type of employment and reported absence from work) correlate with GBV experiences (either of IPV or NPV). This is done using the DHS 2016-2018 domestic violence sample, which covers a nationally representative sample of more than 4,800 women and 3,600 married/partnered women (aged 15 to 49). 62 percent of married women in the sample have experienced some form of IPV in their lifetime (including past year) and 56 percent have experienced it over the past year; 9.5 percent of all women have experienced non-partner sexual violence, with just above 3 percent having experienced it over the past 12 months.

Experiences of GBV and employment outcomes: probability of backlash and increased absenteeism. Accounting for a set of women's and their households' characteristics the following findings emerge:

- (i) **working women are more likely to have experienced both IPV and NPV (Figure 69A), unless they are in high-skilled occupations and better employment (cash employment outside of agriculture); and**
- (ii) **experiences of IPV and NPV increase absenteeism among working women (Figure 69B).**

While the direction of causality is difficult to ascertain, the findings indicate the risk of spousal backlash to women's employment and safety risks limiting women's mobility in PNG,⁴⁵ as well as increased work absenteeism due to experiences of partner- and non-partner violence.⁴⁶ Evidence from other country contexts shows that increases in spousal violence as a result of women's employment emerge primarily in settings where established dynamics within the household are disrupted (for instance, households where women's decision-making power is particularly limited).⁴⁷ Indeed the positive correlation between GBV and employment in PNG is concentrated among women with less than eight years of education (no secondary schooling).⁴⁸ Moreover, the increased risks of NPV appear to be stronger for younger women and are higher in rural areas.

⁴⁴ Authors' estimates based on data from the 2016-2018 DHS.

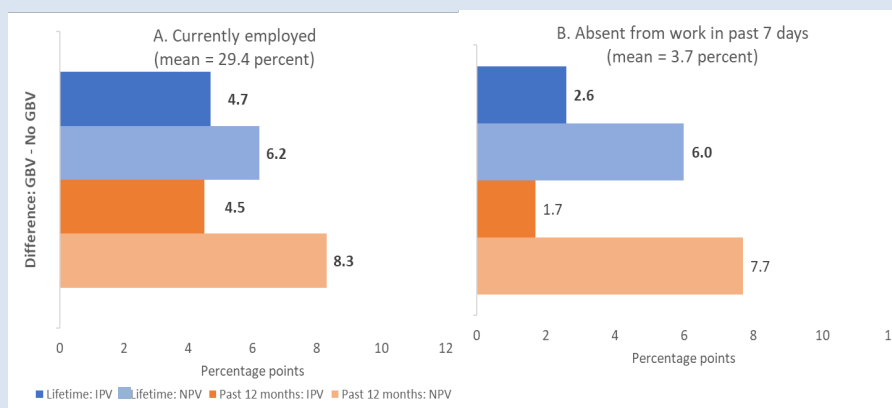
⁴⁵ See Eves 2017a and 2017b.

⁴⁶ See IFC, 2020.

⁴⁷ See, for instance: Heath, R., 2014. Women's access to labor market opportunities, control of household resources, and domestic violence: Evidence from Bangladesh. *World Development*.

⁴⁸ These results remain unchanged when we control for spousal characteristics, such as age and education, and views on the acceptability of IPV, in addition to respondent and household-level covariates. This indicates that it is unlikely that matching with better-educated spouses/spouses less prone to IPV is the main mechanism driving this heterogeneous pattern.

Figure 63A and B. Reported experiences of GBV, by women's employment status and by absence from work



Notes: OLS estimates from regressions of binary employment outcomes on dummies denoting experiences of IPV (emotional, sexual or physical) and NPV (occurrences of non-partner sexual violence). Estimates in **bold** denote statistical significance at the 10 percent level or less. The estimates in (B) are from the sub-sample of currently employed women. The set of pre-determined characteristics (to capture the full extent of GBV's potential effect on current employment) includes women's age, education level, current pregnancy status, number of children, dummies for marital status, language and religion, available proxies for health status (whether woman smokes, ownership of bed nets to proxy for malaria risk and iron supplementation during last pregnancy, if applicable), household wealth index, and province x urban fixed effects. Standard errors clustered on the primary sampling unit level everywhere.

The cost of GBV-related absenteeism in PNG

The absenteeism-associated costs of GBV amount to between 0.39 and 0.69 percent of PNG's 2020 GDP. This averages to approximately half a percent of PNG's GDP in 2020 or close to 160 million US\$ in 2022 prices. To put this estimate into perspective, this loss is equivalent to between a third to a half of overall government health expenditure in 2019, which was 1.3 percent of GDP.⁴⁹

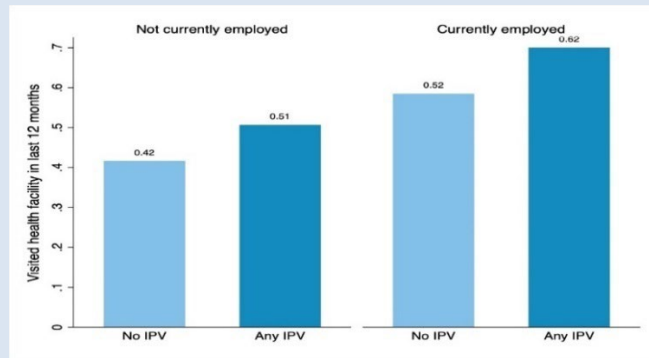
This estimate sums (i) the loss of workdays linked with IPV, which is associated with a productivity cost of between 0.31 and 0.49 percent of PNG's 2020 GDP, and (ii) the loss of workdays due to NPV, which translate into a cost of 0.08 to 0.20 percent of 2020 GDP. In an average week, employed women who have experienced any form of IPV are between 1.7 and 2.6 percentage points more likely to have been absent from work compared to women who have not experienced violence. Following the sectoral methodology outlined in Duvvury et al. (2013),⁵⁰ increased job absenteeism due to NPV translates into 0.08 to 0.20 percent of 2020 GDP.

The true cost of GBV is much higher. Long-term costs due presenteeism and impacts on human capital, for example, are not included in this estimate. As Figure 64 below shows, experiences of GBV result in greater likelihood to visit health care facilities, pointing to detrimental impacts on human capital and health care costs.

⁴⁹ World Bank Data Bank. Health Nutrition and Population Statistics. 2022.

⁵⁰ Authors use latest available data on productivity per worker in agriculture, services and industry from the World Bank Databank and estimate daily productivity per worker by dividing by 260 workdays (or 37 work weeks) on average in each year. We use total employment numbers from the 2010 HIES and women's share of approximately 40 percent of total employment based on the 2018 DHS.

Figure 64: Lifetime experiences of intimate partner-violence and likelihood of a health facility visit over the past 12 months.



Notes: Data from the couples recode of the 2016-2018 PNG DHS.

87. There is no comprehensive legislation to address workplace sexual harassment for public and private sector workers in formal, let alone in informal, settings.⁵¹ Despite underreporting, existing evidence suggests that women continue to experience high levels of sexual harassment in the workplace and in educational establishments in PNG (OECD, 2016). Workplace sexual harassment imposes an additional toll on productivity. Evidence from Cambodia shows that productivity costs associated with sexual harassment experienced by garment factory workers were estimated at about 0.5 percent of GDP (CARE Australia, 2017). Specific legislation tends to offer more comprehensive protection and include preventative awareness-raising measures aiming to challenge underlying discriminatory social norms. Several promising initiatives are ongoing that provide adequate responses to the risk of workplace sexual harassment (see Section 3.3), but economy-wide legal protection from sexual harassment remains critical.

88. Despite the presence of legislation against domestic violence, and increased penalties for offences around domestic violence, enforcement remains weak. The 2013 Family Protection Act (FPA)⁵² and the Criminal Code⁵³ provide basic legislation against domestic violence. However, of close to 15,000 GBV cases reported to Police in 2019, only 300 were prosecuted and only about 100 ended with convictions.⁵⁴ Several actors are responsible to respond to FSV cases, including the Family and Sexual Violence Unit (FSVU) within Royal Papua New Guinea Constabulary (RPNGC) and Sexual Offence Offices. FSVU effectiveness vary in practice across the country. In 2022, PNG amended the FPA, for instance increasing the penalty for the offence of domestic violence and the offence of breach of a Family Protection Order, introducing an offence of aggravated domestic violence which carries higher penalties and introducing authorized persons who can issue Urgent Protection Orders (which last for up to 14 days). A special parliamentary inquiry in 2021 investigated measures to address violence against women and girls. It found that lack of support, funding and coordination prevented adequate response to the increased number of cases.

89. Some customary practices further limit the effectiveness of legislation in preventing or responding to family and sexual violence, as well as survivors' access to lifesaving protection. Despite having authority under the FPA, Village Courts rarely issue protection orders, due to lack of training and information about the law, and the widespread view of FSV as a private family issue. Sorcery-accusation-related

⁵¹ Criminal Code Act, Cybercrime Act, Employment Act, Occupational Health, Safety and Welfare Act, National Public Service GESI Policy, Industrial Relations Act 1962, The Public Service (Management) Act 2014.

⁵² *Family Protection Act* created a new offence of domestic violence: depending on the severity of the offence, perpetrators could be charged under the FPA or the Criminal Code. The FPA also made it easier for survivors to get family protection orders.

⁵³ Sexual Offences and Crimes Act of 2002.

⁵⁴ Special parliamentary Committee on Gender-Based Violence. 2021.

violence (SARV) cases often goes unpunished, as they are often heard in Village Courts that frequently award compensation payments to settle.⁵⁵ Customary practices were considered in 11 percent of FSV cases.⁵⁶ The use of customary reconciliation, while generally occurring outside the formal justice system, can affect its operation, either by preventing cases from reaching the courts, or when used in the mitigation of a sentence. In many cases, the survivor is not involved in the customary reconciliation process or is prevented from seeking redress in the formal court system. Survivors need to have other options than to reconcile and remain in an abusive relationship. While there are efforts to increase the number of women Village Court magistrates, Village Courts remain male dominated.⁵⁷

90. Adequate provision of prevention services and survivor-centered approaches in response remain challenging. Family Support Centers (FSCs) in the health sector are often the primary entry point for response.⁵⁸ There are currently 15 FSCs in 13 of the 22 provinces. The FSC approach provides a unique and critical service to survivors of FSV. VAW services at FSCs, however, rely greatly on general health service providers and do not have a full dedicated staff group nor the ability to provide a 24/7 service.⁵⁹ Training and expertise of counselling staff varies, and many frontline health sector responders are not trained in recognizing and responding to GBV.⁶⁰ Additionally, survivors require ongoing and long-term support, including managing the risks involved along the legal process and often securing new livelihood opportunities.

5. Policy Recommendations: Unlocking the potential for women's access to economic opportunities

91. PNG has made important commitments to gender equality and addressing GBV at both the national and international level, but more can be done. The National Strategy to Prevent and Respond to Gender Based Violence 2016-2025 signals the commitment to zero tolerance towards GBV. In April 2022, the Special Parliamentary Commission on Gender-Based Violence issued concrete recommendations for action. A range of sector specific documents also include commitments around gender equality. Among these, the National Public Service (NPS) Gender Equity and Social Inclusion (GESI) Policy of 2013 and the GESI Policy for Microfinance Institutions. Translating these commitments into adequately resourced and coordinated policies, plans and programs has proven to be more challenging. There are several promising and feasible entry points to accelerate improvements in women's access to paid employment and increased productivity.

92. First, a supportive legal and policy environment is a critical step to facilitate women's economic empowerment. PNG's employment legislation is severely outdated. Modernizing employment legislation and making it more relevant to today's labor market would have benefits, not just for women, but for the economy as a whole. Globally, women's participation in the economy is higher in the long run where labor legislation is more equitable. This positive correlation has been shown to be highly persistent and is associated with a higher labor force for the whole population. Nevertheless, progress in gender-equitable legislation has been slower in PNG compared to its structural and aspirational peers, despite starting at fairly similar levels in the 1970s.

⁵⁵ ICAAD and Clifford Chance, 2018.

⁵⁶ Ibid.

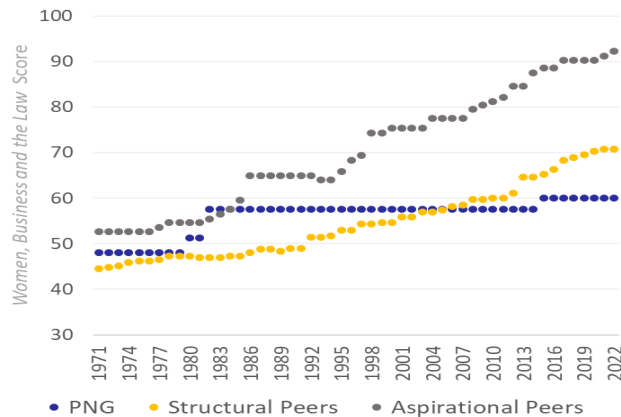
⁵⁷ Department of Justice and Attorney General, 2022, reports about 900 women officials out of 15,000 total officials on Village Courts.

⁵⁸ Ending Violence against women and children in PNG, UNICEF, 2020. The government established FSCs in 2003 as 'one stop shop' to address referral gaps by providing facilities in health centers that are dedicated safe spaces for women and children to seek treatment, counselling, and legal advice if they have experienced violence.

⁵⁹ Ending Violence against women and children in PNG, UNICEF, 2020

⁶⁰ See Spotlight initiative's March 2022 Report, to find details on National Department of Health's GBV interventions on capacity building.

Figure 65: Women, Business and the Law Score,⁶¹ 1970-2022
(percentage)



Source: World Bank Women, Business and the Law Panel 2022.

* Structural peers include Mauritania, Lao PDR, Mongolia, Zambia, Republic of Congo, Uzbekistan, Solomon Islands, and Timor Leste. Aspirational peers include Australia, Peru, and Vietnam.

93. Policy change requires sustained commitment, strong capacity, and resources for implementation. In order to lead to the intended change, legal reforms must be coupled with supportive policies, shifts in attitudes and social norms, and budgetary allocations. Globally, improper implementation or weak enforcement of laws is a critical barrier to the full realization of women’s rights and opportunities.⁶²

94. Second, successful interventions that address gender-based violence at the workplace and support women’s employment and entrepreneurship could be scaled-up. One key initiative is for workplaces to subscribe to Bel Isi PNG, a public-private civil society partnership that provides emergency accommodation, medical services, counselling, and legal help to GBV survivors, as well as anti-sexual harassment training. Short-term public works, if designed to account for women’s specific barriers to access, can provide earning opportunities and skills helpful for their long-term engagement in labor markets. Initiatives that work with businesses to promote the recruitment, retention and promotion of women can drive positive change for women-owned businesses. These approaches, advanced for example by the Business Coalition for Women (BCFW) and the PNG Women’s Business Support Centre, could be expanded to smaller businesses and beyond Port Moresby. The establishment of entrepreneurial hubs, such as the Women’s Business Resource Centre,⁶³ in locations easily accessible to women can bridge information and skills gaps.⁶⁴ Associations and cooperatives can also be leveraged further, as they promote collaboration among women; offer flexibility in coordinating business, community, and family responsibilities; and allow the use of community assets in support of commercial endeavors.⁶⁵

95. Table 6 summarizes promising entry points for action in the short term (1-3 years), which could bring tangible improvements in women’s access to economic opportunities. The PNG government has started steps in these directions, but faster progress is needed to achieve results on the ground.

⁶¹ The *World Bank’s Women, Business and the Law* score reflects to what extent gender equality is supported in national legislation related to mobility, workplace, marriage, pay, parenthood, assets, entrepreneurship, and pension. It includes the presence of national-level legislation on domestic violence and workplace sexual harassment.

⁶² Women, Business, and the Law, 2022, World Bank.

⁶³ Founded in 2016, the Women’s Business Resource Centre operates within the National Capital District and provides key information relevant to female entrepreneurs through online resources as well as organized training, mentoring and networking events.

⁶⁴ Women and Business in the Pacific, ADB, 2018.

⁶⁵ Ibid.

Table 6. Recommendations for action in the short-term (1-3 years)

Legislative measures	Expected impacts
<p>Recommendation 1: Amend labor legislation to promote access to better jobs, support working parents and address workplace sexual harassment</p> <ul style="list-style-type: none"> • Amendments to the 1978 Employment Act could have far-reaching impacts on private sector employment, by outlawing workplace sexual harassment, introducing maternity and parental leave provisions, and eliminating clauses limiting women’s employment choices. (See Box 4). • Employment legislation needs to be revised to meet the needs of today’s labor markets. For example, it needs to clarify the law’s application to the large informal sector, update obsolete guidelines to define wages and non-wage benefits, ensure enforcement mechanisms, bring clarity around timebound contracts, etc. • The 1992 Mining Act needs to be amended to remove restrictions to women’s employment in the mining sector. • To elevate provisions against sexual harassment outlined in the 2013 GESI Policy, sexual harassment in public sector workplaces could be outlawed in the 2014 General Orders and Public Sector Management Act, which regulates employment relations for public sector employees. 	<p><i>Women already working for pay</i> have expanded opportunities to work in sectors and occupations with higher returns, better working conditions, and increased productivity.</p> <p><i>Women not working for pay</i> or who stop working (e.g. following childbirth) see some of the barriers to paid work removed so more women may be able to access paid jobs.</p>
<p>Recommendation 2: Strengthen implementation of laws aimed at addressing GBV</p> <ul style="list-style-type: none"> • Monitor and strengthen implementation of the <i>2013 Family Protection Act</i>, including through adequate resourcing and training of district and village courts and police units. 	<p><i>All women</i> and society at large benefit from stronger response to GBV.</p>
<p>Recommendation 3: Support effective implementation of legislation that provides for equality of inputs such as land and credit.</p> <ul style="list-style-type: none"> • Strengthen enforcement of the <i>Married Women’s Property Act</i>. Amend the <i>1966 Land Act</i> to ensure women’s equal access to customary land. 	<p><i>Female entrepreneurs and farmers’</i> productivity and earnings expected to increase, as they can access better inputs (land and credit through use of collateral).</p>
Policy Measures	Expected impacts
<p>Recommendation 4: Take steps towards provision of early childhood care to address the tradeoff between paid work and childcare responsibilities</p> <ul style="list-style-type: none"> • Strengthen implementation of the <i>2020 Early Childhood Development Policy</i> and fulfil commitments to establishing ECE centers set out in the <i>2020-2029 National Education Plan</i>. 	<p><i>Women working for pay</i>, especially those of childbearing age and earning good wages, are less likely to stop working due to childcare responsibilities.</p>
<p>Recommendation 5: Strengthen coordination and implementation of the 2016-2025 PNG National Strategy to Prevent and Respond to Gender Based Violence</p> <ul style="list-style-type: none"> • Increase resources and enhance coordination between national-, provincial- and district-level bodies to ensure adequate provision of and access to support services for survivors. 	<p><i>All women</i> and society at large benefit from stronger prevention and response to GBV.</p> <p><i>Women workers’</i> productivity losses due to experiences of GBV could be reduced.</p>

	<i>Women not currently working outside the home may see less risk in doing so and thus pursue this option.</i>
<p>Recommendation 6: Promote equal access to education and training embedded in the <i>2020-2029 National Education Plan</i></p> <ul style="list-style-type: none"> • Implement commitments on improving school infrastructure and school-level implementation of the <i>Behavioral Management Policy</i> to improve attendance and reduce risks of school-based violence and harassment. • Strengthen acquisition of foundational skills in schools, starting from access to quality early childhood education, to improve female and male students' school retention and long-term labor market outcomes. Over time, strengthen also TVET and higher education. • Review the <i>Gender Equity in Education Policy</i> and promote women's participation in decision-making bodies in the sector. • Improve capacity for monitoring implementation progress and reporting of sex-disaggregated student and teacher statistics. 	<i>Young women (and men) pursue education for longer and in fields more likely to lead to paid employment opportunities.</i>
<p>Recommendation 7: Update the <i>National Policy on Gender Equality</i> and resource it adequately</p> <ul style="list-style-type: none"> • Outline the PNG government's vision, priorities, and commitment on the gender equality agenda. It could create new momentum to raise and adequately finance priorities. 	<i>All women and society at large benefit.</i>
Scaling up promising interventions	
<p>Recommendation 8: Scale up interventions to address GBV and harassment</p> <ul style="list-style-type: none"> • <i>Workplace responses</i> to addressing GBV such as Bel Isi, which could help victims and improve workplace productivity. These also include sexual-harassment policies established by workplaces. • Gender-transformative approaches, such as advocacy and outreach programs, especially those engaging men and boys, aimed at <i>addressing norms</i> condoning violence (such as the Male Advocacy Program⁶⁶ currently active). • <i>Engagement of a range of community members and groups</i>, such as councils, churches, schools, and businesses in initiatives to address GBV and promoting shifts in social norms. 	<p><i>Women already working in wage employment are more likely to remain in their job and be more productive.</i></p> <p><i>All women and society benefit from tackling GBV.</i></p> <p><i>Younger generations may experience long-term benefits from relaxing social and gender norms, including those condoning violence.</i></p> <p><i>More young women may be encouraged to pursue paid employment outside the home, in light of reduced GBV risk.</i></p>
<p>Recommendation 9: Scale up interventions to improve access to paid employment</p>	<i>Women not working, particularly youth, benefit from skills and</i>

⁶⁶ The Regional Pacific Women's Network Against Violence Against Women. 2020. 'The Warwick Principles: Best Practices for Engaging Men and Boys in Preventing Violence Against Women and Girls in the Pacific' The Regional Pacific Women's Network Against Violence Against Women and UN Women.

<ul style="list-style-type: none"> • Employment and leadership programs, including public works programs, tailored to <i>reach out-of-work female and male youth</i>, such as the World Bank-supported UYEP (Box 2). • Initiatives to <i>strengthen female entrepreneurs' performance and access to information</i>, such as those supported by the PNG Business Coalition for Women (BCFW). 	<p>tailored support to enter the labor force in paid employment.</p> <p><i>Female entrepreneurs already working</i> grow their business for better productivity and returns.</p>
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Box 5: Amending PNG's 1978 Employment Act to Promote Gender Equality

The 1978 Employment Act is the legal framework governing employment relations. It has significant weaknesses, which have long been recognized by the government, workers and employers.

The largely outdated labor law framework presents significant challenges to good governance and hinders gender equality in the labor market. Four priority areas for amendments are identified below.

Priority Area 1: Remove discriminatory employment clauses

While the 1978 Employment act currently prohibits discrimination against female employees (Section 97), it contains clauses limiting women's employment opportunities in various occupations and sectors under sections 98 and 99. Section 98 prohibits women's employment in underground manual work in mining and in "heavy labor", where the latter includes a broad range of jobs in quarrying, diving, fishing, loading of cargo, and mining. This provides legal grounds for excluding women from paid employment opportunities in sectors with potential for growth in jobs such as transport, construction, and mining. Section 99 prohibits employment of women between 6pm and 6am in "any industrial undertaking", where the latter includes mining, quarrying, construction, manufacturing, and passenger/goods transport. It is therefore recommended that the Employment Act:

- **Remove sections 98 and 99, which discriminate against the employment of women in a large number of sectors.⁶⁷**

Priority Area 2: Eliminate sexual harassment and violence in the workplace

PNG ratified the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) in 1995, by which it has committed to abolish discriminatory employment practices, including addressing sexual exploitation and harassment. Currently, the Employment Act does not include any protections for private sector employees against workplace violence and harassment. Following the example of the Public Service 2013 Gender Equality and Social Inclusion Policy (GESI) and to ensure compliance with the Violence and Harassment Convention (C190), which PNG has moved to ratify, it is recommended that the Employment Act:

- **Explicitly prohibit violence, harassment and sexual harassment at the workplace, where definitions align with the C190 definitions of violence and harassment.**
- **Establish the grievance and redress process and include a requirement that employers establish workplace violence and harassment policies.**

Priority Area 3: Limit the impact of traditional gender roles in unpaid work and care

Currently, the 1978 Employment Act does not explicitly prohibit the dismissal of pregnant workers (although some conditional protections exist in Section 100), grants six weeks of maternity leave, without guaranteeing pay,⁶⁸ does not ensure women access to the same position after returning from leave, and does not have any paternity or parental leave provisions. To ensure compliance with the updated Maternity Protection Convention (C183), provide women

⁶⁷ While outside the scope of the Employment Act, to ensure discriminatory employment provisions are eliminated from employment legislation, Section 23 of the Mine Safety Act 1977, which precludes women from certain mining occupations, would also need to be amended.

⁶⁸ Although the Employment Act does not guarantee paid leave, General Order No 14. for public service officers does.

with the opportunity to balance motherhood, unpaid care work and paid employment, and enable fathers to take on a greater share of childcare responsibilities it is recommended that the amended the Employment Act:

- **Strengthen provisions prohibiting discrimination on the grounds of pregnancy/maternity.**
- **Mandate paid maternity leave of at least 14 weeks.⁶⁹**
- **Ensure provisions for paid paternity leave and non-transferable parental leave to each parent.⁷⁰**

Priority Area 4: Strengthen protections for equal pay for work of equal value

While PNG has ratified ILO's Equal Remuneration Convention (C100), the existing provisions for non-discrimination between wages of male and female employees "at the same level and in the same work" is not as comprehensive⁷¹ as required by the Convention. It is recommended that the Employment Act:

- **Mandate "equal remuneration for work of equal value" for male and female employees, where the definition of remuneration aligns with the broad definition in C100.**

⁶⁹ While outside the scope of the Employment Act, to alleviate costs for employers, in the future the government could consider reviewing international best practices to establish a system of government administered maternity leave through compulsory insurance or public funds.

⁷⁰ While length and implementation vary across countries with parental leave policies, the available evidence indicates that in order to incentivize take-up, especially among fathers, it is important that parental leave does not need to be taken at once and is non-transferable across parents.

⁷¹ In particular, it refers only to wages and not broader remuneration (including "ordinary, basic or minimum wage or salary and any additional emoluments whatsoever payable directly or indirectly, whether in cash or in kind, by the employer to the worker and arising out of the worker's employment") and does not provide for equal pay for work of equal value (which does not necessarily have to be in the same sector, for instance). See ILO's C100 for details.

The image features a dark blue background with several abstract, colorful lines and shapes. A prominent yellow line curves from the top left towards the center, ending in a yellow triangle. A teal line follows a similar path below it. A red line curves from the bottom left towards the center, ending in a yellow triangle. Another yellow line curves from the bottom left towards the center, ending in a teal triangle. The word "ANNEXES" is centered in white, bold, uppercase letters.

ANNEXES

Annex 1. Selected Economic and Social Indicators

	2018	2019	2020	2021	2022	2023	2024	2025
					Est.	Projections		
National income and prices <i>(In percent, unless otherwise indicated)</i>								
Nominal GDP (US\$ billions)	24.1	24.8	23.8	26.3	31.3	32.7	33.6	34.0
Real GDP growth	-0.3	4.5	-3.2	0.1	4.5	3.7	4.4	3.1
Extractive sector	-9.2	11.3	-9.2	-11.0	4.7	0.3	5.1	0.1
Non-extractive economy	4.1	1.6	-0.4	4.8	4.5	4.9	4.2	4.2
Consumer price inflation, period average	4.6	3.7	4.9	4.5	6.6	5.3	4.9	4.6
GDP deflator	9.8	1.1	1.3	12.2	14.0	0.8	2.1	2.3
Fiscal accounts <i>(In percent of GDP, unless otherwise indicated)</i>								
Revenue and grants	17.7	16.3	14.7	15.0	15.8	17.1	16.6	17.0
Tax revenue	13.2	13.0	11.9	12.0	12.6	13.0	13.3	13.7
Grants	2.3	2.1	1.7	2.3	1.7	1.8	1.5	1.4
Other revenue	2.2	1.2	1.0	0.7	1.6	2.3	1.9	1.9
Expenditure and net lending	20.3	21.3	23.6	21.8	21.2	21.4	20.6	19.3
Primary expenditure	17.9	18.7	20.9	19.3	19.0	19.0	18.2	16.9
Interest payments	2.4	2.6	2.6	2.4	2.2	2.4	2.4	2.4
Overall fiscal balance	-2.6	-5.0	-8.9	-6.8	-5.4	-4.3	-3.9	-2.3
Primary balance	-0.1	-2.4	-6.2	-4.3	-3.2	-1.9	-1.6	0.1
Non-resource primary balance (percent of non-extractive GDP)	-2.4	-5.3	-9.4	-7.2	-9.8	-7.5	-4.4	-3.2
Public debt	36.7	40.2	48.8	52.2	47.9	49.8	51.2	51.1
External accounts <i>(In percent of GDP, unless otherwise indicated)</i>								
Current account	22.6	22.1	19.4	21.9	33.2	22.7	22.9	21.9
Exports, f.o.b.	44.0	47.6	39.6	39.7	49.6	39.1	39.3	38.9
Imports, c.i.f.	20.1	22.6	19.7	17.4	13.6	13.5	13.6	14.0
Gross international reserves (in months of G&S imports)	4.6	6.2	8.0	9.0	11.1	7.5	6.4	7.2
Money and credit <i>(In percent, unless otherwise indicated)</i>								
Broad money growth	-3.8	4.4	7.0	13.4	12.7	-2.7	4.9	7.0
Domestic credit growth	-6.7	5.2	2.3	15.9	0.8	16.7	11.9	5.7
Growth of credit to the private sector	7.4	4.1	4.2	2.5	9.2	8.4	8.5	8.8
Interest rate of 182-day T-bills, period average	7.0	6.4	5.6	6.0	5.8			
Social indicators								
Population, total (millions)	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7
Population growth (percent)	2.4	2.3	2.2	2.0	1.9	1.8	1.8	1.8
Life expectancy at birth (years)	63.7	64.3	64.4

Sources: Official historical data; World Bank staff estimates and projections

References

- ABP. 2020. Preliminary Market Scan: Concept Development for PNG Technical Training College for Women. Unpublished document commissioned by IFC.
- Amnesty International. 2006. 'Papua New Guinea: Violence against women: Not inevitable, never acceptable!' *London: International Secretariat*. AI Index: ASA 34/002/2006.
- Andrew, Marjorie. 2013. Gender and Economic Choice in Papua New Guinea: Results from a Rapid Qualitative Assessment in Papua New Guinea.
- Bucheli, M. and Rossi, M., 2017. Attitudes toward partner violence and gender roles in Uruguayan women. *Journal of interpersonal violence*, 32(23), pp.3693-3705.
- Business Coalition for Women. 2022. 'Calendar of training and events'. Available at: <https://www.pngbcfw.org/training-events>
- Busse, M. and Sharp, T. 2019. 'Marketplaces and Morality in Papua New Guinea: Place, Personhood and Exchange.' *Oceania*. 89(2):126-153
- CARE Australia. 2014. 'Improving Access to Education in Remote, Rural Communities Through Ward Development Planning?.'
- CARE International, 2017. 'I know I cannot quit': The prevalence and productivity cost of sexual harassment to the Cambodian garment industry. Canberra: CARE Australia
- Chang, H., Be'Soer, L., Wali, C., Anjan, J., and Ramita, I. 2010. 'Women in Sweet Potato Marketing in Papua New Guinea' *Contributed paper presented to the 54th AARES Annual Conference*. February, 2010.
- Darko, E., Smith, W. and Walker, D., 2015. Gender Violence in Papua New Guinea. The cost of business.
- Deloitte Touche Tomatsu and UNDP. 2017. 'Fulfilling the Land of Opportunity: How to Grow Employment in PNG'
- Department for Community Development and Religion. 2019. National Audit of the Informal Economy
- Department of Education. 2014. National Education Plan: Quality learning for all 2015-2019. Port Moresby: Department of Education
- Department of Education. 2020. National Education Plan 2020-2029: Achieving Quality Education for All.
- Dodd, Sarah & Keles, Janroj Yilmaz. 2014. 'Expanding the networks of disadvantaged entrepreneurs.' *OECD Local Economic and Employment Development Programme*
- Druzca, K & Hutchens, A. 2008. Women in business in Papua New Guinea. Canberra: AusAID.
- Duvvury, N., Callan, A., Carney, P. and Raghavendra, S., 2013. Intimate partner violence: Economic costs and implications for growth and development. *Women's voice, agency, and participation research series; no. 3*. World Bank, Washington, DC.
- Duvvury, N., Carney, P. and Minh, N.H. 2012. Estimating the Costs of Domestic Violence Against Women in Vietnam. UN Women, Hanoi, Vietnam
- Edwards, J. 2015. 'Gender and Education Assessment, Papua New Guinea: A review of the literature on girls and Education.' Report prepared for the Australian High Commission, Papua New Guinea and the Education Capacity Development Facility (managed by GRM International).
- Equity Economics, 2021. Gender Equity & Social Inclusion in Papua New Guinea's Public Sector: Measuring Impact
- Eurostat 'Glossary:Standard Output (SO)'. Accessed 24 February 2022. [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Standard_output_\(SO\)](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Standard_output_(SO)).
- Eves, R. 2017a. Women's Economic Empowerment and Escaping Violent Relationships.

- Eves, R. 2017b. The Relationship between Violence against Women and Women's Economic Empowerment in Bougainville.
- Eves, R. and Titus, A. 2017. Gender Challenges to Financial Inclusion in Papua New Guinea *DPA Discussion Paper 2017/8*. Australian National University
- Eves, R., Kouro, G., Simiha, S. and Subalik, I., 2018. Do no harm research: Papua New Guinea.
- EY. 2016a. 'Papua New Guinea Extractive Industries Transparency Initiative Report 2013'. *Extractive Industries Transparency Initiative*.
- EY. 2016b. 'Papua New Guinea Extractive Industries Transparency Initiative Report 2015'. *Extractive Industries Transparency Initiative*.
- FAO. 2019. Country gender assessment of agriculture and the rural sector in Papua New Guinea. Port Moresby.
- Gibson, G, and D Kemp. 2008. 'Corporate Engagement with Indigenous Women in the Minerals Industry: Making Space for Theory'. In *Earth Matters: Indigenous Peoples, the Extractive Industries and Corporate Social Responsibility*, edited by C. O'Faircheallaigh and S. Ali, 104–22.
- GSMA. 2019. Exploring the Gender Gap in Identification: Policy Insights from 10 Countries. London.
- Haley, N. 2015. State of the Service: Women's Participation in the PNG Public Sector. *Australian National University*
- Hinton, R. and Earnest, J. 2010. 'The right to health: Overcoming inequalities and barriers to women's health in Papua New Guinea.' *Women's Studies International Forum*. 33(2010):180-187.
- Horne, R., Ngangan, K., Tavil-Melachon, S. and Brown, J. 2014. 'Research into the Financing of Technical and Vocational Education and Training (TVET) in the Pacific'. *Department of Foreign Affairs and Trade*
- Howes, S., Mako, A.A., Swan, A., Walton, G., Webster, T. and Wiltshire, C., 2014. A lost decade? Service delivery and reforms in Papua New Guinea 2002–2012. *NRI-ANU Promoting Effective Public Expenditure (PEPE) Project*.
- ICAAD and Clifford Chance. 2018. Sexual and Gender-Based Violence in The Pacific Islands: Handbook on Judicial Sentencing Practices.
- IFC. 2020. Workplace Responses to Family and Sexual Violence in PNG: Measuring the Business Case.
- IFPRI, 2019. 'Papua New Guinea Household Survey on Food Systems, 2018' International Food Policy Research Institute (IFPRI) Household- And Community-Level Surveys.
- International Labor Organization. ILOSTAT. <https://ilostat.ilo.org/>
- Jackson, R. 2015. 'The Development and Current State of Landowner Businesses Associated with Resource Projects in Papua New Guinea', March 2015, *Papua New Guinea Chamber of Mines and Petroleum*.
https://espace.library.uq.edu.au/view/UQ:367396/UQ367396_OA.pdf
- Jalal, I., 2009. *Harmful Practices Against Women in Pacific Island Countries: Customary and Conventional Laws*, Expert Group Meeting on good practices in legislation to address harmful practices against women, United Nations Division for the Advancement of Women United Nations Economic Commission for Africa EGM/GPLHP/2009/EP.15 (3 June 2009).
- Jones, P. and Kep, M. 2012. 'Understanding Urbanization in the PNG Context.'
- Jones, L.T. and McGavin, P.A. 2015. Grappling afresh with Labour Resource Challenges in Papua New Guinea. Institute of National Affairs *Discussion Paper No. 96*. Port Moresby
- Kitur, U., Adair, T., Riley, I. and Lopez, R. 2019. 'Estimating the pattern of causes of death in Papua New Guinea' *BMC Public Health*. 1322(2019).
- Kopel, E., Hukula, F., Kutan, L., and Iwong, L 2017. 'Understanding the gender dynamics of the informaleconomy: A case of open markets in Port Moresby'. *PNG NRI Discussion Paper 156*. Port Moresby, PNG: Papua New Guinea National Research Institute.

- Kopel, E., Hukula, F., and Iwong, L. 2017. 'Understanding the dynamics of the informal economy: Market services and vendor concerns in National Capital District'. *PNG NRI Discussion Paper 159*. Port Moresby, PNG: Papua New Guinea National Research Institute.
- Lovai, B. 2016. 'PNG women in leadership' *Development Policy Centre*. Available at: <https://devpolicy.org/png-women-in-leadership-20161118/>
- Lynas, D., 2018. A good business or a risky business: Health, safety and quality of life for women small-scale miners in PNG. *Between the Plough and the Pick: Informal, Artisanal and Small-Scale Mining in the Contemporary World*, p.151.
- Macintyre, M. 2011. 'Modernity, Gender and Mining: Experiences from Papua New Guinea'. In *Gendering the Field* ed. Lahiri-Dutt Kuntala. Australian national University Press.
- Menzies, Nicholas, and Georgia Harley. 2012. "We Want What the Ok Tedi Women Have!" Guidance from Papua New Guinea on Women's Engagement in Mining Deals'. *Briefing Note 7 (2)*. <https://doi.org/10.1596/978-0-8213-9506-6>.
- McKelway, Madeline. 2022. Women's Employment and Empowerment: Descriptive Evidence. *Forthcoming in AEA Papers and Proceedings*, 112(5). May 2022.
- Mishra, V. and Smyth, R. 2016. 'A Scoping Study to Provide an Assessment of SME Policy Priority Areas for Papua New Guinea'. *The National Research Institute*. Port Moresby, PNG: Papua New Guinea National Research Institute.
- Mishra, V., Odhuno, F. and Smyth, R. 2017. 'Do Women Face Different Barriers than Men when Participating in SMEs? Empirical Evidence from Papua New Guinea'. *PNG NRI Discussion Paper 155*. Port Moresby, PNG: Papua New Guinea National Research Institute.
- National AIDS Council of PNG. 2006. 'National Gender and Policy Plan on HIV and AIDS 2006-2010
- National Statistics Office (NSO). 2011. 'Education Summary Indicators by Citizen and Non-Citizen' Available at: <https://www.nso.gov.pg/statistics/education/>
- National Statistical Office (NSO) -NSO/Papua New Guinea and ICF. 2019. 'Papua New Guinea Demographic and Health Survey 2016-18.' Port Moresby, Papua New Guinea, and Rockville, Maryland, USA: NSO and ICF.
- Nordhagen, S., Pascual, U. and Drucker A. 'Gendered differences in crop diversity choices: A case study from Papua New Guinea'. *World Development*. 137(2021).
- OECD. 2016. East Asia and the Pacific Social Institutions and Gender Index Report.
- Overfield, D. 1998. 'An Investigation of the Household Economy: Coffee Production and Gender Relations in Papua New Guinea'. *The Journal of Development Studies*. 34(5):52-70
- Pacific Financial Inclusion Programme. 2020. Power women's and girls' access and agency assessment: Papua New Guinea.
- Pacific Private Sector Development Initiative. 2015. 'Building A Dynamic Pacific Economy Strengthening The Private Sector In Papua New Guinea' *Asian Development Bank*.
- Pennings, S. 2022. 'A Gender Employment Gap Index (GEGI): A Simple Measure of the Economic Gains from Closing Gender Employment Gaps, with an Application to the Pacific Islands' *Worldbank Group Policy Research Working Paper*. 9942, February 2022.
- PNG Business Advocacy Network. 2022. Papua New Guinea Women's Business Agenda.
- Schmidt, E., Mueller, V. and Rosenbach, G. 2020. 'Rural households in Papua New Guinea afford better diets with income from small businesses.' *Food Policy*. 97 (2020) 101964
- Sever, C., 2022. Gendered laws and labour force participation. *Applied Economics Letters*, pp.1-7.
- Sharp, T., Cox, J, Spark, C., Lusby, S. and Rooney, M. 'The Formal, the Informal, and the Precarious: Making a Living in Urban Papua New Guinea' *Australian National University*. SSGM Discussion Paper 2015/2

- SME Finance Forum. 2022. 'MSME Finance Gap'. <https://www.smefinanceforum.org/data-sites/msme-finance-gap>.
- Spark, C., 2014. "We only get the daylight hours": Gender, fear and freedom in urban Papua New Guinea. *Security Challenges*, 10(2), pp.15-32.
- Sullivan, Nancy and Bidesi, Vina Ram. 2008. Gender issues in tuna fisheries : case studies in Papua New Guinea, Fiji and Kiribati. *Forum Fisheries Agency & Pacific Islands Forum Secretariat*. Honiara, Solomon Islands
- The Regional Pacific Women's Network Against Violence Against Women. 2020. 'The Warwick Principles: Best Practices for Engaging Men and Boys in Preventing Violence Against Women and Girls in the Pacific' The Regional Pacific Women's Network Against Violence Against Women and UN Women
- UNAIDS. 2020. Country progress report – Papua New Guinea. Global AIDS Monitoring 2020.
- UNDP. 2013. 'Advancing Sustainable Development: The Case of Extractive Industries'. *Regional Initiative on Management of Natural Resources for Equity and Sustainability: Extractive Industries in Asia and the Pacific*.
- UNDP. 2014. 'Papua New Guinea National Human Development Report'.
- UNESCO. 2015. 'Pacific Education for All 2015 Review.' *UNESCO APLA Office*.
- UNESCO. 2021. 'Sustainable Development Goals'. *UNESCO Institute for Statistics*. Available at: <http://data.uis.unesco.org/>
- UNFPA. 2021. 'UNFPA Papua New Guinea'. *UNFPA Data*. Available at: <https://www.unfpa.org/data/PG>
- UNICEF East Asia and the Pacific Regional Office, UNFPA Asia and Pacific Regional Office, and UN Women Asia and Pacific Regional Office. 2020. Ending Violence against Women and Children in Papua New Guinea: Opportunities and Challenges for Collaborative and Integrative Approaches.
- Unpublished census data. 2011. cited in EY. 2016. 'Papua New Guinea Extractive Industries Transparency Initiative Report 2013'. *Extractive Industries Transparency Initiative*.
- UN Women, the United Nations Development Programme, United Nations Environment Programme, Poverty-Environment Initiative (UNDP-UNEP PEI) Africa, and the World Bank. 2015. 'The Cost of the Gender Gap in Agricultural Productivity in Malawi, Tanzania, and Uganda'. *UN Women, UNDP, UNEP, and the World Bank Group*.
- UN Women and East Asia and Pacific Gender Lab. 2018. 'Women Farmers in Timor-Leste: Bridging the Gender Gap in Agricultural Productivity' *Policy Brief Issue 4: November 2018*
- Yount, K.M., Halim, N., Schuler, S.R. and Head, S., 2013. A survey experiment of women's attitudes about intimate partner violence against women in rural Bangladesh. *Demography*, 50(1), pp.333-357.
- Voigt-Graf, C. 2017. "Labour Market in PNG: Background paper for Systematic Country Diagnostic (SCD) for PNG" *World Bank Report*
- Voigt-Graf and Odhuno. 2019. 'Assessing the Labour Market Impact of the PNG LNG Project and Implications for Future Projects'. *Development Policy Centre Discussion Paper 78*, Crawford School of Public Policy, The Australian National University, Canberra.
- Walby, S. 2009. 'The Cost of Domestic Violence: Up-date 2009'. University of Lancaster.
- Waltermauer, E. 2012. Public justification of intimate partner violence: A review of the literature. *Trauma, Violence, & Abuse*, 13(3), pp.167-175.
- Wickramasinghe, U., Omot, N., Patiken, A., and Ryan, J. 2015. 'Market Participation of Smallholder Agricultural Households in Papua New Guinea' *ESCAP Working Paper*. 108.
- Widana, A. 2018. Gender in Road Construction: Experience in the Papua New Guinea Highlands. *Open Access Library Journal*, Vol.5 No.12, 2018

- Wilson, Emma. 2019. 'What Is Benefit Sharing? Respecting Indigenous Rights and Addressing Inequities in Arctic Resource Projects'. *Resources* 8 (2): 74. <https://doi.org/10.3390/resources8020074>.
- World Bank. 2012a. "Gender Equality and Development" World Development Report. *Washington, D.C.: World Bank*.
- World Bank. 2012b. 'Engendering Mines in Development: A Promising Approach from Papua New Guinea. Social Development Notes.' *Washington, DC. World Bank*. <https://openknowledge.worldbank.org/handle/10986/10062>
License: CC BY 3.0 IGO
- World Bank and IFC. 2014. The Fruit of her Labor: Promoting Gender-Equitable Agribusiness in Papua New Guinea.
- World Bank. 2015. "Enterprise Surveys: Papua New Guinea Country Profile". *World Bank*.
- World Bank. 2016. 'Women, Business and the Law 2016: Getting to Equal.' *Washington, D.C.: World Bank*.
- World Bank. 2018. Service Delivery by Health Facilities in Papua New Guinea. *World Bank, Washington, DC*.
- World Bank. 2018. 'Papua New Guinea Urban Youth Employment Project 2018 Impact Evaluation and Results' *World Bank Group*.
- World Bank. 2018. 'Household Allocation and Efficiency of Time in Papua New Guinea'. *World Bank Group*.
- World Bank. 2020. 'Rural population (% of total population) - Papua New Guinea'. *World Bank Data*
- World Bank. 2021. 'Employment in agriculture (% of total employment) - East Asia and Pacific'. *World Bank Data*. Available at: <https://data.worldbank.org/indicator/SL.AGR.EMPL.FE.ZS?locations=Z4-CN-KH-LA-PG>
- World Bank. 2022. 'Gender in Extractive Industries'. Text/HTML. World Bank. 2022. <https://www.worldbank.org/en/topic/extractiveindustries/brief/gender-in-extractive-industries>.
- World Health Organization. 2021. 'National estimates 2010-2018'. *World Health Organization: Global Database on the Prevalence of Violence Against Women*. Available at: https://srhr.org/vaw-data/data?region=®ion_class=&countries%5B%5D=KHM&countries%5B%5D=KIR&countries%5B%5D=LAO&countries%5B%5D=SLB&countries%5B%5D=VUT&violence_type=ipv&violence_time=lifetime
- World Health Organization. 2022. 'Maternal mortality ratio'. *World Health Organization: The global health observatory*. Available at: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/maternal-mortality-ratio-\(per-100-000-live-births\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/maternal-mortality-ratio-(per-100-000-live-births))

