



UNITED NATIONS  
PAPUA NEW GUINEA



# COMMON COUNTRY ANALYSIS 2023 UPDATE



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# Acronyms

ABG	Autonomous Bougainville Government	MP	Member of Parliament
ADB	Asian Development Bank	MSME	Micro, small and medium enterprise
ARoB	Autonomous Region of Bougainville (Bougainville)	MTDP IV	Medium-Term Development Plan IV 2023-2027
BPA	Bougainville Peace Agreement	NAP	National Adaptation Plan
BPNG	Bank of Papua New Guinea	NCD	National Capital District
CCDA	Climate Change and Development Authority	NDC	Nationally Determined Contributions
CEPA	Conservation and Environment Protection Authority	NEC	National Executive Council
CSO	Civil Society Organization	NGOs	Non-governmental organizations
DfCDR	Department for Community Development and Religion	NPSP	National Policy on Social Protection
DHS	Demographic and Health Survey	ODA	Official Development Assistance
DMT	Disaster Management Team	PGK	Papua New Guinean Kina
DNPM	Department of National Planning and Monitoring	PNGFA	PNG Forest Authority
DSIP	District Services Improvement Program	PPL	PNG Power Limited
FDI	Foreign direct investments	PSIP	Provincial Service Improvement Program
GBF	Global Biodiversity Framework	PWD	People with disabilities
GBV	Gender-based violence	SARV	Sorcery accusation-related violence
GDP	Gross domestic product	SDES	Socio-Demographic and Economic Survey 2022
GNI	Gross national income	SDGs	Sustainable Development Goals
GoPNG	Government of Papua New Guinea	SDR	Special Drawing Rights
HDI	Human Development Index	SME	Small and medium enterprise
ICAC	Independent Commission Against Corruption	SOE	State-owned enterprise
IDA	International Development Association	SPA	Strategic Priority Area
IDMC	Internal Displacement Monitoring Centre	STaRS	National Strategy for Responsible Sustainable Development 2015
ILO	International Labour Organization	STI	Sexually Transmitted Infections
IMF	International Monetary Fund	TLS	Timber Legality Standard
IOM	International Organization for Migration	UNDAF	UN Development Assistance Framework
LGBTIQ+	Lesbian, gay, bisexual, transgender, intersex, questioning (+ related communities)	UNDP	United Nations Development Programme
LLG	Local-level government	UNDRR	United Nations Office of Disaster Risk Reduction
LNG	Liquefied Natural Gas	WaSH	Water, sanitation, and hygiene

# Executive Summary

The Common Country Analysis (CCA) 2023 update provides a detailed overview of Papua New Guinea's (PNG's) development achievements and needs from social, economic, governance, and environmental perspectives. It incorporates the 2022 update of the 2021 CCA and contains data and information, where available, until December 2023. The CCA update thoroughly examines the underlying and structural issues affecting the lives and livelihoods of Papua New Guineans. It highlights the potential risks that could emerge from these integrated factors.

In July 2023, the Government of Papua New Guinea (GoPNG) launched its Medium-Term Development Plan (MTDP) IV 2023-2027. The MTDP IV incorporates 12 strategic priority areas (SPAs), supported by Deliberate Intervention Programs, and is aligned with the work programs of the national and subnational governments and development partners in PNG.

The United Nations Sustainable Development Report 2022 outlines countries' achievement of Sustainable Development Goals (SDGs). It shows that PNG stagnated on 14 of the 17 SDGs, declined on one goal (SDG 2 Zero Hunger), and lacks data to assess progress on two goals (SDG 4 Quality Education and SDG 10 Reduced Inequalities).

For this update, PNG's development landscape was assessed against the six transitions for investment pathways to deliver the SDGs. The research found:

- PNG faces several challenges in transitioning to a sustainable agrifood system, including reinforcing territorial and gender disparities, primarily manifested in socio-economic disparities between rural and urban areas.
- Papua New Guineans face significant challenges with poor access to electricity. For those with access, unreliable power supplies and lengthy blackouts impact homes, businesses, and the delivery of critical services.
- Challenges to digital connectivity include inadequate institutional and individual capacity within GoPNG to conduct whole-of-government and whole-of-society digital upgrades and inadequate affordable broadband connectivity nationwide.
- The Socio-Demographic and Economic Survey (SDES) 2022 revealed a significant increase in school attendance among the population aged five years and over, from 57.4% in 2011 to 77.7% in 2022.
- The SDES found that the labour force participation rate for the population aged 15 and over is 51.8 percent, with 53.1 percent male and 50.6 percent female. The employment rate is 97.6 percent, with the majority being female and in rural areas. PNG has not formulated a new social protection strategy since the strategy's expiration in 2020.
- The impacts of global climate change are driving vulnerabilities associated with more extreme weather events, rising sea levels, and potential changes to biodiversity, including loss of livelihoods. Over 80

percent of the country's population is susceptible to climatic extremes due to their direct dependence on natural resources, subsistence agriculture, and limited adaptation capacity. Threats to wildlife and biodiversity include wildlife trade, unsustainable hunting or fishing and resource use, invasive species, use of modern technology to hunt or fish, clearing and habitat loss (for example, rough extractive industries including agriculture, logging, mining, oil, and gas extraction), invasive species, loss of biocultural knowledge, climate change, and pollution and sedimentation.

- PNG faces significant challenges in managing waste, including outdated legislation, limited sustainable financing mechanisms, and a lack of national policies or strategies.

A root cause analysis for PNG development challenges, from the governance, economic, financial, environmental, social, and humanitarian-development-peace perspectives, over the update review period shows some significant developments, including:

- Governance: election of three female members of parliament (MPs); increase in the District Services Improvement Program (DSIP) funds to MPs from Kina (K)10 million to K20 million each; appointment of the first Commissioner and Deputy Commissioners to the newly formed Independent Commission Against Corruption (ICAC)
- Economy: PNG embarked on a third liquefied natural gas (LNG) project and reopened the Porgera gold mine in Enga province, further cementing mining and quarrying as the largest sector in PNG, contributing 33 percent to the gross domestic product (GDP); the IMF Executive Board approved PNG's request for SDR684.3 million (equivalent to US\$918 million).
- Social: SDES results highlighted various new trends on the social front, including the decline of fertility rates in PNG and the increase in educational achievement.

However, developments have not been significant from the perspective of financial and environmental analyses.

In economics and finance, PNG has one of the lowest tax-to-GDP ratios in the world, at 12.1 percent. Approximately 57 percent of the population is multidimensionally poor despite the country's \$31 billion GDP, which ranks it as the 100th largest economy in the world out of 170 countries.

Environmentally, while PNG has outstanding biodiversity values, governance improvements are required because of outdated legislation and inadequate capacity. The country also suffers from the high-level threat of natural disasters, and much of the countryside is difficult to traverse. Since 2016, global resources have had to be mobilized for at least one annual major disaster/crisis, most recently the COVID-19 pandemic and its ongoing health and economic impacts with which PNG is still contending.

From a humanitarian-development-peace perspective, challenges remain despite significant strides in peace and security. The Autonomous Region of Bougainville (AroB/ Bougainville) has entered the post-referendum process and faces complex challenges. In Hela and Southern Highlands Provinces, by the end of 2019, dozens of violent incidents placed substantial pressure on realizing human rights, social/structural stability, and human development. The effects of these protracted conflicts have been profound and multidimensional, threatening and displacing entire communities.

Several persons fall into the category of 'those left behind' in PNG, including people with disabilities (PWD), vulnerable children, youth,

women, older adults, settlers, landless people, those displaced by conflict or natural hazards, people living with HIV/AIDS, and PNG's rural and remote communities. The SDES found that 19.6 percent of people aged five and over have functional difficulties involving communication, self-care, remembering or concentrating, walking or climbing steps, hearing, and seeing.

After a decade of commitment to the SDGs, it is time for GoPNG to raise the bar and proactively pursue its national goals to benefit all PNG people.



# GOVERNANCE



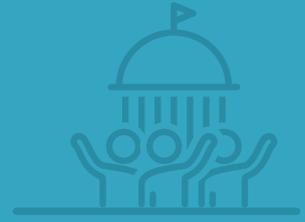
# 331

Local-level governments.



# 6

international human rights instruments ratified.



# 46

Registered political parties.



# 3

Female MPs

# 133

out of

# 180



Transparency International Corruption Index 2023 ranking – PNG 133 out of 180 countries.

WORLD BANK  
COUNTRY POLICY  
& INSTITUTIONAL  
ASSESSMENT  
SCORE (2022) -

**2.8 OUT OF 6**

DISTRICT  
SERVICES  
IMPROVEMENT PROGRAM (DSIP)

District Services Improvement Program (DSIP) – 96 MPs receive Kina 20 million each – Kina 10 million spent at the MPs discretion, Kina 10 million to infrastructure and other government priorities.



# ENVIRONMENT



# 97%

Land is in customary ownership.



# 75%

Of the forest is still intact.



# 15

Active volcanoes.



# 1,786

Species of amphibians, reptiles, birds & mammals, make up at least between 5% & 9% of the world's total.



PNG is the world's largest exporter of tropical round logs, exporting

**84% of these logs to China.**



**ENVIRONMENTAL PERFORMANCE INDEX, RANKING**

**146 OUT OF 180**

**COUNTRIES.**

# PNG IS TOP 10



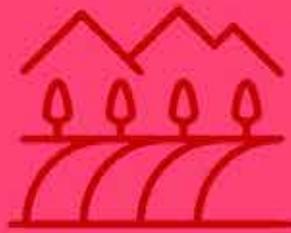
Among the world's countries where conserving its natural environment can contribute to saving biodiversity.

## SOCIAL



# 15%

Urban population.



# 85%

Rural population.



# 44%

Households using solar power (2022).



# 85.7%

Literacy rate (2022).



**Government expenditure on health**  
as a percent of GDP (2020) 2.53%



# 11.8

 Million  
**POPULATION (2021)**

# 62.7%



Proportion of population (6 to 24 years)  
**currently attending school (2022).**

# ECONOMICS



# 4%

GDP growth (2023).



# 1.4%

Inflation rate (2023).



# 3%

Kina Facility Rate (2023).

## TOP 5 SECTORS IN PNG (2022)

### 33.2%



● Mining and Quarrying.

### 17.6%



● Agriculture, Forestry and Fishing.

### 9.4%



● Wholesale and Retail Trade.

### 7.5%



● Administrative and Support Service Activities.

### 6.2%



● Construction.



**LABOUR FORCE PARTICIPATION RATE OF THE POPULATION AGED 15 YEARS+ IS 51.8%:**

**53.1% MALE &**

**50.6% FEMALE**



## 13 listed companies

On the PNG Stock Exchange with a total market capitalization of USD 20.3 billion as of October 2021.

FIGURE 1: PAPUA NEW GUINEA COUNTRY MAP



FIGURE 2: PAPUA NEW GUINEA POLITICAL MAP



# Introduction

The CCA is the United Nations' independent, impartial, and collective analysis of the country context. It is an essential background document for implementing the UN in PNG's Sustainable Development Cooperation Framework 2024-2028. The CCA examines progress, gaps, opportunities, and bottlenecks vis-à-vis a country's commitment to achieving the 2030 Agenda, UN norms and standards, and the principles of the UN Charter. It focuses on six areas – economic transformation, social exclusion, environment and climate change, governance and institutional gaps, financial landscape, and humanitarian-development-peace collaboration. CCA analyses describe how things are, examine progress towards the 2030 Agenda and the SDGs, and examine the multidimensional risks of PNG, including that no one is left behind.

This 2023 CCA update builds on the 2021 CCA that was compiled according to the new framework outlined by the UN Sustainable Development Group: Development Coordination Office. The 2021 CCA was based on extensive stakeholder consultations (see Annex 1 for a list of stakeholders). For this report, updated information on the crucial analyses included in the CCA was provided by UN staff, mainly from Priority Working Groups of the PNG UN Development Assistance Framework 2018-2023. Responsibilities were divided as follows:

- Prosperity Working Group: economic transformation and financial landscape analyses
- Peace Working Group: governance and institutional analysis; humanitarian-development-peace analysis
- People Working Group: Social Exclusion Analysis
- Planet Working Group: environment and climate change analysis.

Non-resident agencies were involved in the CCA process through the functions of the Working Groups.

Secondary data from multiple sources was collected for this 2023 CCA update. This research involved literature reviews, including publications from international organizations, other reputable agencies, and government reports. Source documents are cited in footnotes throughout this document. The analytical methodology included trend analysis of time series data and content analysis of qualitative data. While the information remained the same as the 2022 update in some areas due to a lack of new data, in other areas, information has been updated with the latest data from either 2022 or 2023.

The 2023 CCA update is divided into six sections, including an MTDP IV summary, progress towards achieving the SDGs, and PNG's status regarding the six transitions to achieve the SDGs. Section 4 is subdivided into six areas of analysis:

1. Governance and institutions
2. Economic transformation
3. Financial landscape
4. Environment and climate change
5. Social exclusion
6. Humanitarian-development-peace nexus.

Section 5 looks at human rights and issues facing identified vulnerable populations, and section 6 examines the issues from the previous sections within a multidimensional risk analysis. Additionally, there are two annexes – a list of stakeholders consulted for the original 2021 CCA and a detailed analysis of SDG progress. A short bibliography is also included.



# 1. Medium-Term Development Plan IV

In July 2023, the government launched the MTDP IV 2023-2027, focusing on “National Prosperity through Growing the Economy.” This theme captures the GoPNG’s intent to deliberately invest in strategic priority areas to trigger national growth, transformation, and prosperity. The five-year MTDP is the fourth in succession, incorporating lessons learned from previous MTDPs. It reflects the government’s development agenda and the Prime Minister’s official pronouncements.

The objectives of the MTDP IV are to grow the GDP by K164 billion towards the 2030 target of K200 billion by doubling PNG’s internal and

export revenues and creating one million new jobs by 2027. The MTDP IV has 12 strategic priority areas (SPAs). Within each SPA are Deliberate Intervention Programs assigned to the responsible sector agencies to deliver over the MTDP IV period. Deliberate Intervention Programs are high-level sectoral programs that will guide the government’s investment plans, budget, programming, and implementation. They are aligned with the work programs of the national and subnational governments and development partners in PNG. The table below shows each SPA’s link to the SDGs and the overall objectives of SPAs.

**TABLE 1: MTDP IV STRATEGIC PRIORITY AREA AND SDG LINK**

Strategic Priority Area	Focus	Relevant SDG
SPA01 – Strategic Economic Investment	The critical economic sectors where PNG has the most significant potential to meet its development aspirations and targets	
SPA02 – Connect PNG Infrastructure	Improving country-wide connectivity through the development of critical infrastructure	
SPA03 – Quality and Affordable Health Care	Primary health care, specialized health care, and health care infrastructure	
SPA04 – Quality Education and Skilled Human Capital	Deliver accessible, affordable, and quality education.	
SPA05 – Rule of Law and Justice	Effective policing, enhancing public safety and extending initiatives for crime prevention, facilitating restorative justice, improving access to justice systems, promoting community peace, and capacity building for effective delivery of justice services	
SPA06 – National Security	Improve the capabilities of the National Defence systems.	
SPA07 – National Revenue and Public Finance Management	Support tax and non-tax revenue mechanisms.	
SPA08 – Digital Government, National Statistics and Public Service Governance	Digitalization and integration of public service systems	
SPA09 – Research, Science and Technology	Strategic Investments in research, science, and technology	
SPA10 – Climate Change and Environment Protection	Building an economy that is resilient to the impacts of climate change	
SPA11 – Population, Youth, and Women’s Empowerment	Sustainably managing the population, empowering youths, and addressing issues affecting women, PWD, and other vulnerable populations.	
SPA12 – Strategic Partnerships	Strengthen partnerships to advance PNG development and strategic interests.	

FIGURE 3: MTDV IV SPAS AND DELIBERATE INTERVENTION PROGRAMS



## 2. Progress towards 2030 Agenda and SDGs



### SDG Dashboards and Trends

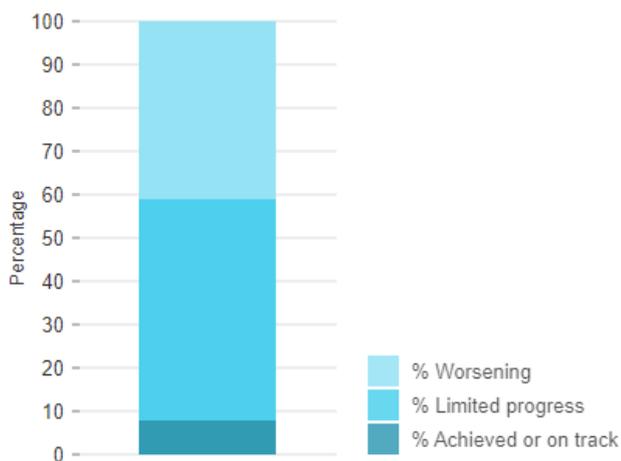
Click on a goal to view more information.



**Dashboards:** ● SDG achieved ● Challenges remain ● Significant challenges remain ● Major challenges remain ● Information unavailable

**Trends:** ↑ On track or maintaining SDG achievement ↗ Moderately improving → Stagnating ↓ Decreasing ↔ Trend information unavailable

### Status of SDG targets for Papua New Guinea (% trend indicators)



## FIGURE 4: PROGRESS ON SDG INDICATORS

### SDG 1: No poverty

- → Poverty headcount ratio at \$2.15/day
- → Poverty headcount ratio at \$3.65/day

### SDG 2: Zero hunger

- → Prevalence of undernourishment
- ↓ Prevalence of stunting in children under 5 years of age
- → Prevalence of wasting in children under 5 years of age
- ↓ Prevalence of obesity, BMI ≥ 30
- → Human Tropic Level
- → Cereal yield
- ↓ Sustainable Nitrogen Management Index
- → Exports of hazardous pesticides

### SDG 3: Good health and well-being

- → Maternal mortality rate
- → Neonatal mortality rate
- → Mortality rate, under-5
- → Incidence of tuberculosis
- → New HIV infections
- → Age-standardized death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30–70 years
- → Age-standardized death rate attributable to household air pollution and ambient air pollution
- → Traffic deaths
- → Life expectancy at birth
- → Adolescent fertility rate
- → Births attended by skilled health personnel
- ↓ Surviving infants who received 2 WHO-recommended vaccines
- ↓ Universal health coverage (UHC) index of service coverage
- → Subjective well-being

### SDG 4: Quality education

- → Participation rate in pre-primary organized learning
- → Net primary enrollment rate
- → Lower secondary completion rate
- → Literacy rate

### SDG 5: Gender equality

- → Demand for family planning satisfied by modern methods
- → Ratio of female-to-male mean years of education received
- → Ratio of female-to-male labor force participation rate
- ↓ Seats held by women in national parliament

### SDG 6: Clean water and sanitation

- → Population using at least basic drinking water services
- → Population using at least basic sanitation services
- → Freshwater withdrawal
- → Anthropogenic wastewater that receives treatment
- → Scarce water consumption embodied in imports

### SDG 7: Affordable and clean energy

- → Population with access to electricity
- → Population with access to clean fuels and technology for cooking
- → CO<sub>2</sub> emissions from fuel combustion per total electricity output
- ↓ Renewable energy share in total final energy consumption

### SDG 8: Decent work and economic growth

- → Adjusted GDP growth
- → Victims of modern slavery
- → Adults with an account at a bank or other financial institution or with a mobile-money-service provider
- → Unemployment rate
- → Fundamental labor rights are effectively guaranteed
- → Fatal work-related accidents embodied in imports
- → Victims of modern slavery embodied in imports

### SDG 9: Industry, innovation and infrastructure

- → Rural population with access to all-season roads
- → Population using the internet
- → Mobile broadband subscriptions
- ↓ Logistics Performance Index: Quality of trade and transport-related infrastructure
- → The Times Higher Education Universities Ranking: Average score of top 3 universities
- → Articles published in academic journals
- → Expenditure on research and development

### SDG 10: Reduced inequalities

- → Gini coefficient
- → Palma ratio

### SDG 11: Sustainable cities and communities

- → Proportion of urban population living in slums
- → Annual mean concentration of particulate matter of less than 2.5 microns in diameter (PM<sub>2.5</sub>)
- ↓ Access to improved water source, piped
- → Satisfaction with public transport

### SDG 12: Responsible consumption and production

- → Municipal solid waste
- → Electronic waste
- → Production-based SO<sub>2</sub> emissions
- → SO<sub>2</sub> emissions embodied in imports
- → Production-based nitrogen emissions
- → Nitrogen emissions embodied in imports
- → Exports of plastic waste

### SDG 13: Climate action

- → CO<sub>2</sub> emissions from fossil fuel combustion and cement production
- → CO<sub>2</sub> emissions embodied in imports
- → CO<sub>2</sub> emissions embodied in fossil fuel exports

### SDG 14: Life below water

- → Mean area that is protected in marine sites important to biodiversity
- → Ocean Health Index: Clean Waters score
- ↑ Fish caught from overexploited or collapsed stocks
- ↑ Fish caught by trawling or dredging
- → Fish caught that are then discarded
- → Marine biodiversity threats embodied in imports

### SDG 15: Life on land

- → Mean area that is protected in terrestrial sites important to biodiversity
- → Mean area that is protected in freshwater sites important to biodiversity
- ↓ Red List Index of species survival
- → Permanent deforestation
- → Terrestrial and freshwater biodiversity threats embodied in imports

### SDG 16: Peace, justice and strong institutions

- → Homicides
- → Unsensitized detainees
- → Population who feel safe walking alone at night in the city or area where they live
- → Birth registrations with civil authority
- → Corruption Perceptions Index
- → Children involved in child labor
- → Exports of major conventional weapons
- ↓ Press Freedom Index
- → Access to and affordability of justice
- → Timeliness of administrative proceedings
- → Expropriations are lawful and adequately compensated

### SDG 17: Partnerships for the goals

- → Government spending on health and education
- → For high-income and all OECD DAC countries: International concessional public finance, including official development assistance
- ↓ Other countries: Government revenue excluding grants
- → Corporate Tax Haven Score
- → Statistical Performance Index

**TABLE 2: SUMMARY OF SDG PROGRESS**

	<p>A significant proportion of PNG's population still lives in poverty. The social protection system is inadequate, and most people do not have access to essential services. Economic loss from disasters has increased.</p>
	<p>Undernourishment and stunting persist. However, plant breeds and agriculture as a share of GDP have increased. GoPNG has reduced subsidies for agriculture exports while reducing its expenditure on agriculture.</p>
	<p>PNG health indicators are improving, as shown by the decreasing maternal and infant mortality rates and increased universal health coverage. However, rates of non-communicable diseases have increased, and government expenditure on health has declined. The number of medical doctors in the country remains low.</p>
	<p>Enrollment in primary and early education has increased. However, very few students complete secondary education, and official spending on education has declined.</p>
	<p>While the female-to-male labour force participation rate is almost 1:1, women are not equally participating in political, business, and public service leadership. Despite the excellent policy to address discrimination against women, many women experience gender-based violence (GBV).</p>
	<p>While spending on water, sanitation and hygiene (WaSH) has more than doubled since 2000, most of the population does not have access to WaSH facilities.</p>
	<p>While access to electricity has increased and energy efficiency has improved, access to renewable energy has declined.</p>
	<p>PNG's economy continued to expand except when the country experienced the 2018 earthquake and the 2020 pandemic. Unemployment remains low, but approximately one-third of young people are not in work or education. Access to banking institutions remains low.</p>
	<p>The PNG mobile network (from 2G to 4G) is widespread, but few people use the internet. The high-tech industry is a tiny proportion of value-added (manufacturing sector), with zero expenditure on research and development. Small-scale industries received one-third of loans, and manufacturing value-added to GDP declined. Higher education and published articles receive low scores, and there are few full-time researchers.</p>

	<p>Labour accounts for one-third of GDP, and one-fifth of the population lives below the median income. Non-performing loans have increased. Development assistance has almost doubled, and three-quarters of imports are zero-tariff rated.</p>
	<p>The annual mean concentration of particular matter exceeds the WHO max safety level.</p>
	<p>Domestic material consumption decreased while electronic waste generated per capita increased.</p>
	<p>The impacts of global climate change are driving vulnerabilities associated with more extreme weather events, sea-level rise, and potential changes to biodiversity, including loss of livelihoods. Over 80% of the country's population is susceptible to climatic extremes due to their direct dependence on natural resources, subsistence agriculture, and limited adaptation capacity.</p> <p>The National Adaptation Plan (NAP), launched in 2022, provides a clear stepwise sectoral framework for the government's intervention in partnership with sector agencies, academic institutions, development partners, and private sector entities to plan, build synergies, and make decisions for resilience and adaptation from the adverse effects of climate change. The NAP addresses nine priority areas for adaptation, namely: i) coastal flooding and sea level rise; ii) Inland flooding; iii) food insecurities; iv) cities and climate change; v) climate-induced migration; vi) damage to coral reefs; vii) malaria; viii) vector-borne diseases; and ix) landslides.</p>
	<p>PNG's vast and diverse marine environment is globally significant in terms of its ecosystem structure, function, and biodiversity, and it is locally significant for the many thousands of PNG residents who rely on its resources for subsistence and income. Most of PNG's threatened and highly biodiverse marine and coastal ecosystems and species are poorly protected, leaving them potentially vulnerable to conflicting resource use and over-exploitation. Coastal populations are expanding rapidly, placing pressure on coastal and marine resources.</p> <p>PNG has not met its SDG 14 and Aichi Target 11 (17 percent of terrestrial and inland water areas and 10 percent of coastal and marine areas to be effectively and equitably managed), including a need to protect and manage deep water habitats and reefs and to adequately protect commercial fish stock spawning aggregations, marine turtles, seabirds and cetaceans. Only 4.8% of the country's terrestrial area is formally gazetted as protected areas, while less than 1% is recognized as marine protected areas. The Global Biodiversity Framework (GBF) proposed that governments conserve 30% of land and water by 2030, which GoPNG will ratify.</p> <p>The National Oceans Policy 2020, launched in 2021, aims to achieve a sustainable blue economy.</p>
	<p>PNG's forests are globally significant regarding ecosystem structure and function, carbon storage, carbon dioxide sequestration, and biodiversity. Most forest land is owned by customary landowners who rely on forest resources for subsistence and income. Annually, PNG raised over K400 from log export, but by 2025, no more round logs will be exported, and downstream processing will be promoted.</p> <p>Approximately 75.1% of the forest is still intact or not disturbed by anthropogenic activities. Human impacts on the forest constitute logging (11.5%), gardening (8.7%), fire (3.1%), other (1.4%), portable sawmill (0.2%), infrastructure (0.02%) and mining (0.01%), totally up to 25%. Nearly three million ha of forest was mapped as becoming "degraded" between 2000 and 2019. This represents about 10% of PNG's forests, primarily due to logging. The annual area of forest degradation more than doubled from 2001 (87,600 ha) to its peak in 2011 (200,050 ha). Since its peak, the rate slowed to 100,000ha in 2019. Between 2000 and 2019, just over 352,804 ha (0.98%) of forest was cleared and converted to other uses. Between 2000 and 2010, almost 100,662 ha (0.28%) was deforested. The average annual area of deforestation between 2011 and 2015 (30,700 ha) was significantly more than between 2001 and 2005. It increased by 154,361ha (0.42%) between 2011 and 2015. The annual deforestation rate slowed to under 20,000 ha by 2019 due to government policies and the cancellation of some Special Agricultural Business Leases. From 2016 to 2019, deforestation decreased to 99,780ha (0.28%). Forest and land use contributed a net GHG emission of 21,654Gg CO2-eq in 2020 compared to 1,716 CO2-eq in 2015.</p> <p>The National Sustainable Land Use Policy was launched in 2023 and aims to provide comprehensive guidance on land use and land management across PNG.</p>
	<p>Un-sentenced detainees have increased over the past decade. Corruption perception remains. Registration of children remains low – birth registrations with civil authority were only 13.4% of children under the age of 5 years.</p>
	<p>PNG's high corporate tax haven score means corporate tax cannot be avoided. Foreign direct investment (FDI) has increased.</p>

# 3. Six Transitions: Investment Pathways to Deliver the SDGs

Rooted in the 17 SDGs, six transformative entry points – or critical transitions – have been established that can have catalytic and multiplier effects across the SDGs and determine each goal's achievement. These investment pathways, outlined below, include Food systems, Energy access and affordability, Digital connectivity, Education, Jobs and social protection, Climate change, biodiversity loss, and pollution.<sup>1</sup>

## 3.1 Food systems

PNG faces several challenges in transitioning to a sustainable agrifood system, as identified by the four key sustainability questions on the issues of food security and nutrition, decent livelihoods and jobs, ecosystem preservation and natural resources, and equity and territorial balance. The challenges of these four issues include reinforcing territorial and gender disparities, primarily in socio-economic disparities between rural and urban areas. PNG's Gender Inequality Index has worsened over the last few years, ranking it at 161 out of 162 countries. The current agrifood system cannot address food insecurity and the triple burden of malnutrition. Over 56 percent of households worry about not having enough to eat, with 49.5 percent of children being stunted, 14.1 percent suffering from wasting, 13.7 percent being overweight, and 48 percent being anaemic. The rate of chronic malnutrition in children under five years has remained unchanged since 1983, and the prevalence of overweight and obesity among adults has increased, contributing to increasing incidences of non-communicable diseases.<sup>2</sup>

Agrifood chains in PNG lack efficiency, leading to low productivity, low quality of produce, high levels of post-harvest losses, high food import dependency, and poor food and nutrition security outcomes. The agrifood system is also increasingly vulnerable to natural hazards and climate change impacts, with PNG ranking 10 out of 171 countries in 2016 in terms of high risk of exposure and vulnerability to natural hazards. The country lies along the 'Pacific Ring of Fire'. It is prone to environmental disasters induced by natural hazards such as volcanic eruptions, earthquakes, tsunamis, cyclones, rising sea levels, heavy rainfall, floods, landslides, and El Niño. Climate change impacts are expected to increase, with the rise in maximum and minimum temperatures expected to be significantly faster than average temperatures, intensifying risks to human health and ecosystems. Rainfall projections are less specific, and hazards such as landslides, flash floods, and coastal flooding are expected to escalate, with damage to population and economy projected to double by 2030.<sup>3</sup>

PNG's rural population faces significant challenges in agribusiness, including low human capital formation, limited access to agricultural input/output markets, and a weak information system. The rural

population is predominantly concentrated in areas with poor connectivity and access to basic infrastructure and services. This phenomenon results in low human capital formation, exacerbating women's conditions in rural areas. This disadvantage leads to limited agricultural sector development, resulting in low-quality produce and high post-harvest losses. Isolated rural communities lack productive employment opportunities, reducing income generation potential. High dependence on natural resources increases vulnerability to natural hazards and climate change impacts.<sup>4</sup>

The dominance of PNG's customary land tenure system restricts agricultural and rural development, limiting access to credit for value chain actors. This issue discourages capital investments and conflicts among indigenous communities, affecting overall economic growth and worsening food and nutrition security. The government has implemented various policy initiatives to promote inclusive development, improve customary land administration, improve food and nutrition security, and promote mitigation and adaptation capacity to natural hazards and climate change impacts. However, these initiatives remain ineffective due to a lack of funds and human capital, poor coordination among government units, poor leadership, lack of monitoring and evaluation mechanisms, absence of basic infrastructure, and a weak information system.<sup>5</sup>

The answers to PNG's four key sustainability questions propose systemic levers to address territorial and gender disparities, food insecurity, weak and underdeveloped agrifood chains, and increasing vulnerability to natural hazards and climate change. These include firm policy and investment support to enhance rural accessibility, promote public education and advocacy about dietary diversity, strengthen farmer cooperatives and organizations, and increase national disaster finance. Such measures aim to improve the delivery of services like education and health, improve market access, and create better livelihood opportunities for rural communities. Additionally, they aim to increase local communities' adaptation and mitigation capacity and support creating a robust national database/information system for disaster and climate-related information. These systemic levers aim to empower women, promote public education, strengthen farmer cooperatives, and create an enabling environment for value chain actors.<sup>6</sup>

## 3.2 Energy access and affordability

Papua New Guineans across the country face significant challenges with poor access to electricity, and even for those with access, unreliable power supplies and lengthy blackouts impact homes, businesses, and the delivery of critical services. While PNG has significant untapped energy resources, the development of these resources is lagging, and the

<sup>1</sup> <https://unsdg.un.org/sites/default/files/2023-09/Six%20Transitions%20English.pdf>.

<sup>2</sup> FAO, European Union and CIRAD. 2023. Food Systems Profile – Papua New Guinea. Catalysing the sustainable and inclusive transformation of food systems. Rome, Brussels and Montpellier, France. <https://doi.org/10.4060/cc7056en>

<sup>3</sup> Ibid

<sup>4</sup> Ibid

<sup>5</sup> Ibid

<sup>6</sup> FAO, European Union and CIRAD. 2023. Food Systems Profile – Papua New Guinea. Catalysing the sustainable and inclusive transformation of food systems. Rome, Brussels and Montpellier, France. <https://doi.org/10.4060/cc7056en>

country's electricity access remains extremely low, with only an estimated 13 percent of the population having access to grid-connected electricity.<sup>7</sup>

Grid-connected power is primarily restricted to the main urban areas, and supply is often unreliable. Access to electricity is very limited in off-grid rural areas, which limits economic growth in urban areas, constrains growth in smaller urban centres, and contributes to poverty in rural areas. Most provincial centres are supplied entirely by diesel, resulting in high generation costs and low power supply quality. PNG's per capita electricity consumption is among the lowest globally. The national state-owned power utility, PNG Power Limited (PPL), manages about 320 MW of installed generation capacity, including three main grids and 19 isolated mini-grids. The remaining capacity comprises self-generation systems owned by industrial facilities and private generators. PNG's mountainous terrain and geographically dispersed population compound the challenge of developing town/rural electrification infrastructure. High network losses, high household connection charges, lack of coordination and leadership in the energy sector, and weak governance and financial management within PPL further complicate the implementation of the government's power sector roadmap.<sup>8</sup>

The energy sector in PNG faces several development challenges, including the Gazelle, Port Moresby, and Ramu power grids, which face rapid demand due to robust economic growth. The unreliable and low-quality power supply, high maintenance and operation costs, and low efficiencies in power generation make significant investments from both the public and private sectors necessary. Town and rural electrification is also challenging due to the geographical conditions and higher operation and maintenance costs for diesel-based mini-grid systems. This issue makes it difficult for PPL to expand its grids into rural areas.<sup>9</sup>

### 3.3 Digital connectivity

Digital connectivity faces several challenges in PNG. Despite government efforts, there is insufficient coherence in approaching digitalization across government departments at national and local levels, reducing sustainability. Challenges include inadequate institutional and individual capacity within GoPNG to conduct whole-of-government and whole-of-society digitalization; inadequate, affordable broadband connectivity nationwide; lack of infrastructure, power, network connection, and essential equipment access; and lack of knowledge and information about digital transformation.<sup>10</sup>

The opportunities that exist include:

- Assisting in implementing digital government, enhancing interoperability, promoting reuse, increasing scalability, and creating a shared understanding of digitalization across government departments at national and provincial levels
- Develop a skills roadmap to build institutional and individual capacity

- Facilitate capacity-building programs among government departments, public service training institutes, and academia
- Share best practices
- Provide policy and regulatory assistance to the country
- Establish public-private-investor platforms for greater synergy and agreement on roadmaps
- Develop a nationwide information campaign about the benefits of digitalization and implement programs like Smart Villages, Smart Islands, and Digital Villages to directly impact rural and remote populations.<sup>11</sup>

The recommended actions include:<sup>12</sup>

- Offer technical support to the National Department of Information and Communications Technology and other digital transformation officers at the national and local levels to accelerate the adoption of a stack-based approach.
- National workshop to promote a common understanding of digitalization
- Encourage government departments and UN agencies to collaborate on sector-specific e-strategies (e.g., digital health, agriculture, education, and financial inclusion) to promote interoperability and build on each other's efforts
- Share international best practices and offer customized technical support
- Provide training on digitalization for the entire government, such as the PNG Digital Government Delivery Workshop (2023)
- Integrate government-wide digitalization into public service training programs
- Encourage the government to develop digital certification programs and fund upskilling for identified courses
- Create a sandbox environment for staff to build
- Increase competition for nationwide broadband infrastructure
- Share best practices on policy and regulations
- Promote the adoption of relevant digital services
- Organize public-private sector roundtables with investors, donors, and development banks to ensure end-to-end delivery and involve relevant stakeholders.
- Encourage governments to allocate budget resources for digital transformation initiatives like Smart Villages and Smart Islands (International Telecommunication Union), Digital Villages (Food and Agriculture Organization), and EU STREIT (PNG) to ensure everyone benefits.
- Share success stories and impact to prioritize funding from government, industry, and donors in this area.

<sup>7</sup> <https://www.worldbank.org/en/news/press-release/2021/04/06/papua-new-guinea-improved-access-to-reliable-affordable-energy>

<sup>8</sup> <https://www.adb.org/sites/default/files/linked-documents/47356-002-ssa.pdf>

<sup>9</sup> Ibid

<sup>10</sup> ITU Asia-Pacific Regional Office

<sup>11</sup> Ibid

<sup>12</sup> Ibid

### 3.4 Education

The 2022 SDES revealed a significant increase in school attendance among the population aged five years and over, from 57.4 percent in 2011 to 77.7 percent in 2022. The proportion of the population aged 6-24 years attending school also increased from 41.8 percent in 2011 to 62.7 percent in 2022. The net attendance rate for elementary, primary, and secondary schools increased from 2018 to 2022, with the most significant increase in elementary education. The gross attendance rate also increased significantly, reaching 108.7 percent for elementary, 92.2 percent for primary, and 42.5 percent for secondary.

Females showed higher attendance at all levels of schooling. Literacy significantly increased between 2011 and 2022, reaching 86.7 percent in 2022, compared to 67.6 percent in 2011. Affordability was the main reason for not attending school, while getting married was the main reason for females not attending school.

### 3.5 Jobs and social protection

The SDES found that the labour force participation rate for the population aged 15 and over is 51.8 percent, with 53.1 percent male and 50.6 percent female. The employment rate is 97.6 percent, with the majority being female and in rural areas. The most common occupations are agriculture, fishing, and forestry, followed by service and sales workers. In 2022, most employment was paid wage/job workers at 54.5 percent. Self-employed farming, gardening, and fishing workers comprised 33.8 percent of the workforce. The unemployment rate in PNG is 2.4 percent, with 2.8 percent of males and 2 percent of females unemployed. The main reasons for not seeking employment are in-school or training (31.3 percent) and family responsibilities or housework (25.2 percent). In 2022, 21.1 percent of persons aged 15 and over had no job and were available for work. Additionally, 12.2 percent of children aged 10 to 17 were working.<sup>13</sup>

The National Policy on Social Protection (NPSP) 2015-2020 is PNG's comprehensive strategy aimed at addressing the needs of vulnerable or disadvantaged groups, including children, youth, women, PWD, elderly persons, and people living with HIV/AIDS. The policy focuses on four core principles: protecting vulnerable individuals and groups from unpredictable risks, limiting livelihood risks associated with vulnerability, supporting disadvantaged individuals and families during unexpected risks, and addressing disasters that pose significant risks to people and communities across PNG.<sup>14</sup>

### 3.6 Climate change, biodiversity loss and pollution

The impacts of global climate change are driving vulnerabilities associated with more extreme weather events, rising sea levels, and potential changes to biodiversity, including loss of livelihoods. Over 80

percent of the country's population is susceptible to climatic extremes due to their direct dependence on natural resources, subsistence agriculture, and limited adaptation capacity. According to the United Nations Office for Disaster Risk Reduction (UNDRR, 2019b), over half a million people live in coastal villages exposed to rising sea levels, coastal degradation, and storm surges. These diverse risks have implications for human rights as the negative impact on lives and livelihoods may fuel social unrest and increase vulnerability for marginalized populations.<sup>15</sup>

Threats to wildlife and biodiversity include wildlife trade, unsustainable hunting or fishing and resource use, invasive species, use of modern technology to hunt or fish, clearing and habitat loss (for example, rough extractive industries including agriculture, logging, mining, oil, and gas extraction), invasive species, loss of biocultural knowledge, climate change, and pollution and sedimentation. Sustainable wildlife use is a pillar of survival for many rural people in PNG as a source of food, medicine, firewood, and building materials. Wildlife is also an integral part of cultural and traditional life. Sustainability has become more challenging to ensure due to increasing human populations and development activities placing pressure on habitats for wildlife populations. The loss and destruction of biodiversity often result in few long-term benefits for local landholders or the PNG community. The people who suffer most from biodiversity decline are the poorest, reliant on hunting and fishing for survival, and women and children.<sup>16</sup>

PNG faces significant challenges in managing waste, including outdated legislation, limited sustainable financing mechanisms, and a lack of national policies or strategies. Wastewater and sewage are primarily released as stormwater drainage, with commercial premises containing high concentrations of pollutants. Rapid population growth outpaces investment in WaSH and waste infrastructure and services in urban, peri-urban, and rural areas. Improvements are needed to reduce the exposure of vulnerable populations to health risks from poor quality WaSH and environmental impacts from unmanaged or poorly managed waste disposal. Significant multilateral and bilateral investments are needed to improve WaSH and waste management in PNG, guided by multilateral, national, and institutional frameworks and strategies. PNG has embraced eco-industrial development and is developing its first National Waste and Chemical Management Policy. The Public Health Act 1973 and the Environment Act 2000 cover some aspects of waste management. The Conservation and Environment Protection Authority (CEPA) is drafting the National Waste Management Policy 2024-2034, providing a framework for solid waste management and other chemical waste. Most of these Multilateral Environment Agreements still need to be fully implemented by the government.<sup>17</sup>

<sup>13</sup> PNG National Statistical Office Socio-demographic Economic Survey, 2022

<sup>14</sup> Government of Papua New Guinea: Department of Community Development & Religion. 2015. National Social Protection Policy 2015-2020. Port Moresby: Government of Papua New Guinea

<sup>15</sup> See details in the Root cause analysis Environment and climate change section of this CCA.

<sup>16</sup> Ibid

<sup>17</sup> See details in the Environment and climate change section of this CCA.

# 4. Root Cause Analysis

This section analyses the PNG development context that underpins the country's progress towards the SDGs. The critical data on social, environmental, economic, governance, and humanitarian-development-peace developments in 2023 and the latest available analysis in these areas are presented in the six subsections. While some topics have new data, other topics remain unchanged.

## 4.1 Governance and institutional analysis

### 4.1.1 Political and institutional structure

There are three levels of government in PNG: national, provincial, and local. The PNG Parliament is a unicameral legislature comprising 118 Members. Among these, 96 Members are elected from Open electorates (Districts), while the remaining 22 are Governors elected from Provincial electorates. In the July 2022 elections, two women parliamentarians were elected to the national assembly – the first women in parliament since 2017. By November 2023, the first female MP from Bougainville was elected, resulting in three female MPs. There are 331 local-level governments (LLGs) and 6,375 wards (made up of villages), the smallest unit of government presence headed by Councillors.<sup>18</sup>

### 4.1.2 Formal and informal institutions

The three main takeaways from the National Research Institute's 2021 Governance Update, focusing on an analysis of formal and informal institutions in PNG, are that the informal rules of the game tend to 'trump' the formal rules, that politics is highly personalized and localized; and the independence of the government bureaucracy has been eroded in recent years.

Informal socio-economic networks, cultural norms and expectations, and exercising personal power tend to shape governance and inhibit transparency. PNG is a signatory to several major international conventions, including six international human rights instruments. However, the domestication of these instruments and the framework for Papua New Guineans to directly claim their rights is less clear. The PNG Constitution is thorough and provides the basis for a Westminster-style system of government. Legislation and policy frameworks are often relatively comprehensive.

Elections are based on the patrimonial logic of 'big man' politics. MPs and other officials are elected based on their ability to act as patrons to their core group of supporters. Once in power, most elected officials must constantly scramble for allies and use the influence and resources of their office to sustain their position. Ministers and other politicians have much discretion over how and where state resources are spent and

tend to engage directly in decisions through which effective rents might be generated (for example, natural resource concessions). Constituency development funds are one example of this situation.<sup>19</sup>

PNG has seen the proliferation of 'provision pacts' based on providing political rents to elites to establish patronage and remain in power. Provision pacts encourage MPs and their entourages to personally distribute rents locally, an institutionalized process in the DSIP and Provincial Services Improvement Program (PSIP) grants systems. These systems give MPs wide-ranging autonomy over millions of PNG Kina (PGK), with minimal transparency in utilizing funds. It has created incentives to mix public money with private investments that do not necessarily benefit the broader public interest and to easily divert government resources into loyal pockets – including loyalist-controlled businesses, which can act as insurance for MPs should they not be re-elected.

In 2023, Prime Minister James Marape announced the increase of funds given to MPs under the Services Improvement Programs (SIPs) – DSIP, PSIP, and the LLGSIP. The 96 MPs receiving the DSIP will now receive K20 million annually, a 100 percent increase from the K10 million offered in 2013. Therefore, MPs for the 96 districts will receive K100 million over the five-year election cycle. The MPs will maintain their discretion on how the K10 million will be spent, while the additional K10 million amount will be allocated equally to infrastructure development and other government priorities.

The SIP started in 1984 as a K10,000 National Development Fund for each MP. Between 2012 and 2016, the allocation of the MP's expenditure followed DSIP guidance, where 30 percent was for infrastructure, 20 percent for health service improvement, 20 percent for education, 10 percent for law and order, 10 percent for economic support, and 10 percent for administration. From 2016, the K10 million given to MPs is spent at their discretion. The Auditor General has found many cases of fraudulent transactions associated with the SIP, including for the Gazelle District, which received K58 million between 2007 and 2016. The Auditor General found evidence of non-compliance with government procurement processes, fraudulent ghost projects, failed health projects, and the absence of proper record keeping.

From an international comparative perspective, provision pacts have led to state weakness and fragility. They may also drive increasing militarization and competitive authoritarianism, including restricting democratic mechanisms, such as freedom of assembly and speech and compliance of the press. When political pacts are based on rent-based provisioning,

<sup>18</sup> Graham Teskey, Tara Davda, Abbas Maarooof, Prashanth Parthiban, 2021. Papua New Guinea Governance Update 2021: Steady as she goes? The National Research Institute, Papua New Guinea, 3

<sup>19</sup> Teskey and Davda, PNG Governance Update, 3-4

there are strong incentives not to invest in watchdogs, anti-corruption authorities, or citizen accountability mechanisms. Instead, the benefiting parties are inclined to reduce transparency, shifting arrangements into state-owned enterprises (SOEs) or private sector institutions, where commercial sensitivity can deny scrutiny of patronage practices.<sup>20</sup>

#### 4.1.3 Four features of the Papua New Guinean state

##### 1. Penetration

The state and its formal administrative structures have not yet penetrated rural PNG to the degree that would enable the effective delivery of services or create a substantive and deep-rooted sense of citizenship and nationhood. The ability of the state to deliver public goods and services (health care, education, and infrastructure) is weak. Most Papua New Guineans rarely engage with state representatives, and, for most, the government in Port Moresby remains a distant abstraction.

##### 2. Fragmented and centrifugal politics

PNG's extraordinary ethnic diversity – approximately 850 language groups and further subgroups and clans – creates a highly fragmented political landscape, exacerbating the political economy challenges that arise from resource dependency.

The country has 46 registered political parties, with no one dominant party. Instead, there are several one-person (all men) parties. Few are based on policies or programs. Even when there are policies, they are often overridden by 'big man politics.' This context means that, to an extent, all politics is local. MPs seldom gain and retain power by delivering on broad national or regional interest issues. Instead, they are elected and re-elected based on their ability to deliver resources to their locality and immediate supporters.<sup>21</sup> Combined with a Westminster parliamentary system that leaves governments susceptible to no-confidence votes, this has been an obstacle to political stability, policy predictability and coherence, and the delivery of public services. MPs are elected from vast fields of candidates (up to 50 in an electorate, each with local support pockets). Fewer than 50 percent are returned in the next election.

Despite political fragmentation, powerful centralizing forces are active in PNG. The same elected member is also the influential head of the executive. Heavy centralization is also familiar with resource dependence, where resource rents flow into central levels to be allocated by political and executive agencies. This centralizing is advanced in PNG and institutionalized in the cabinet or National Executive Council (NEC), primary expenditure vehicles such as the Public Investment Program and the SIPs, and the proliferation of statutory authorities and SOEs.<sup>22</sup>

##### 3. Institutionalization

Government institutions in PNG (i.e., elections, judiciary, legislature, and public service recruitment) are not robust, deeply rooted, or routinized,

and many are unstable and politically contested. Individuals in positions of authority can manipulate them and tend to reflect rather than challenge the interests of the dominant coalition. Party membership is based on patronage, not ideology; the party itself is considerably less important than the individuals who constitute it. Unlike many neighbours, PNG has been democratically governed for five decades and avoided military rule and dictatorship.

##### 4. Autonomy and pluralism

The government is not independent of society; sometimes, there is little distinction between public and private spheres of action. Again, the operations of Constituency development funds demonstrate this. The state can serve as a vehicle for the social and economic advancement of individual politicians, bureaucrats, and their clients rather than the broader 'national interest'. Political mobilization seldom results from broad-based socio-economic identities or interests. Few independent and 'horizontal' social groupings have the membership and capacity to hold the government accountable. Therefore, government policy and practice are shaped in response to the demands of elites and donors, not the electorate or civil society.<sup>23</sup>

#### 4.1.4 Institutional framework for justice and human rights

The legal and institutional framework for the realization of various human rights is comparatively robust, with a "Human Rights Track Court" and Ombudsman Commission enabling the raising of many human rights-relevant issues, including alleged discrimination by Government entities.

However, obstacles remain. While six international human rights instruments have been ratified (and only the Convention on the Rights of the Child and the Convention on the Elimination of All Forms of Discrimination Against Women domesticated), GoPNG has not ratified the Convention against Torture and Other Cruel Inhuman or Degrading Treatment or Punishment, the Convention for the Protection of All Persons from Enforced Disappearance, and the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families. GoPNG has also not ratified the Optional Protocols to any instruments it is a state party, thereby declining to submit to the individual complaints procedures for many of the respective treaties.

The Constitution enshrines many essential international human rights, including the right to life, freedom of expression and assembly, freedom of thought, conscience, and religion, liberty of the person, freedom from inhuman treatment, and right to protection of the law, including critical fair trial rights. However, specific provisions are not identical to international standards. No national human rights institution exists (despite this being one of the recommendations of the Universal Periodic Review), and the draft legislation establishing it, pending since at least 2009, has not been finalized, although efforts remain underway.

<sup>20</sup> World Bank, 2018. Systematic Country Diagnostic: The Independent State of Papua New Guinea, 97-105

<sup>21</sup> Teskey and Davda, PNG Governance Update, 4

<sup>22</sup> World Bank, 2018. PNG Country Diagnostic, 97-105

<sup>23</sup> Teskey and Davda, PNG Governance Update, 4

The Forty-ninth Human Rights Council session examined the Working Group Report on the Universal Periodic Review for PNG, compiled in November 2021. The report reviewed several issues, including the rights of PWD, rights of women, and rights of children.<sup>24</sup> Of 161 recommendations covering various areas, including the rule of law and administration of justice, LGBTIQ+ rights, and access to health and education, 101 were supported by GoPNG, while 60 were noted. Key recommendations included:

- establishment of a national human rights institution
- accession to/ratification of international human rights instruments, including the Convention Against Torture
- improved cooperation and follow-up with treaty bodies, in particular, timely reporting
- improved and non-discriminatory access to health and education
- strengthening gender equality and, in particular, women's political participation
- taking more steps to prevent sexual violence, violence against women and girls, and GBV
- strengthening freedom of expression and access to information
- protecting the rights of PWD
- juvenile justice reform, including raising the minimum age of criminal responsibility
- abolition of the death penalty
- decriminalization of same-sex relations and, in general, strengthening legal protections for LGBTIQ+ persons
- development of a national action plan on business and human rights
- birth registration
- investigation and prosecution of police violence
- promotion and protection of the rights of asylum-seekers and refugees.

Noted recommendations, or those not "supported" by GoPNG, include (but are not limited to):

- ratification of the Convention Against Torture
- police violence
- LGBTIQ+ persons' rights
- rights of asylum-seekers and refugees.

The recommendations on the death penalty were also "noted" by the Government, but laws providing for the death penalty were repealed in January 2022.

Justice sector institutions require further strengthening. In particular, an Office of the United Nations High Commissioner for Human Rights/United Nations Development Programme (UNDP) Human Rights Assessment of the Royal PNG Constabulary (2011) reflected on the significant under-

resourcing of the police force, among a variety of other issues including command and control, internal accountability, and community relations. While training has been enhanced in many areas, including human rights, more is needed for some institutions, particularly uniformed personnel. In addition, free legal assistance for redress in various fora, including criminal cases and cases involving redress for human rights abuses, requires further strengthening.

Engagement with UN human rights mechanisms has been mixed, with a standing invitation extended to special procedures since May 2011 and active participation in the Universal Periodic Review, but delays in other significant mechanisms. PNG is overdue for all treaty body reports for which it is responsible. For example, the most recent report submitted for the Convention on the Elimination of all Forms of Discrimination Against Women was in 2009. Special Procedures mandate holders visited the country in 2010, 2012, and 2014, with specific requests for visits remaining pending, but COVID-19 has posed challenges for all visits since 2020.

Civic space in PNG is mixed. Active civil society members exist, but challenges include a lack of strong networks, limited robust media outlets, and limited access to the internet in many parts of the country. Human rights defenders, in particular environmental and women human rights defenders (including women political candidates who have frequently served as advocates for women's rights), continue to face threats, intimidation, harassment, and violence. No adequate measures, such as dedicated legislation or provisions of non-dedicated legislation, presently exist to protect human rights defenders from harm/threats based on their activities. However, a human rights defender protection law is being prepared by the Department of Justice and Attorney General. Human rights defenders cite significant resource challenges as a major obstacle to their effectiveness. A No Access to Information Law would enable free access to government information for all stakeholders, although the Constitution provides this. Defamation continues to be a criminal offence.

#### 4.1.5 Law and order and anti-corruption

After re-election in 2022, Prime Minister James Marape affirmed law and order and anti-corruption efforts among his government's top priorities in his inaugural address. Royal PNG Constabulary Commissioner Mr David Manning declared 2023 the "Year of Law and Order."

In recent years, PNG has increasingly suffered severe harm from transnational crime threats. International organized crime syndicates are strengthening their presence in PNG, profiting from a wide range of illicit activities. Due to its porous borders and strategic geographical position, PNG is increasingly used as a source and transit point for illicit trafficking, such as drug trafficking, wildlife trafficking, illegal logging, human trafficking, and illegal firearm trafficking.

Synthetic drugs are trafficked from Southeast Asia through PNG to reach neighbouring consumer markets in the Pacific, and occasionally, synthetic

<sup>24</sup> United Nations General Assembly, Human Rights Council, Forty-ninth session, 28 February-1 April 2022, Agenda item 6.

drugs are also produced in PNG. Changes in international demand for wildlife have increased PNG's vulnerability to illegal wildlife trafficking and logging because of the abundant natural resources present in PNG and the limited wildlife protection laws and enforcement. Human trafficking continues to impact the most vulnerable in PNG's society. Men are reportedly trafficked for forced labour, women for sex trafficking and forced labour, and children for child labour in the various prevalent industries of PNG, including fishing, logging, and extractive industries.

Organized crime groups profit from these activities, and related criminal proceeds are laundered in-country and offshore. Given the transnational nature of these crimes and the limited resources available, the criminal justice system of PNG faces several constraints limiting its responses to transnational organized crime and its illicit activities. The limited resources available to law enforcement, including the limited number of officers, the lack of statistics on crime, the slow prosecution processes, and the limited specialized training available to law enforcement, undermine PNG's response to transnational organized crime.

Additionally, PNG has not yet signed nor ratified many international instruments to counter transnational organized crime. PNG is not a State Party to the UN Convention on Transnational Organized Crime nor to its Protocols on human trafficking and the smuggling of migrants and firearms. PNG is also not a party to the UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988 (Vienna Convention).

GBV remains a grave concern for PNG. Around 55 percent of women reported having experienced physical violence since age 15, with 28.2 percent experiencing sexual violence and 34.5 percent experiencing both physical and sexual acts of violence. Various intersecting cultural and socio-economic factors commonly present in a deeply patriarchal and patrilineal society, coupled with a low prosecution and conviction rate and the limited resources available to law enforcement to respond effectively to this type of crime, are considered the root causes for the high incidence of GBV in PNG.

Corruption remains a significant threat to PNG's stability, governance, and security. Corruption is enabled through patronage networks, cross-border transactions, weak regulatory frameworks in critical industries, and other sophisticated schemes, and it is connected to criminal actors' increasing presence and influence, deteriorating justice and public service delivery, especially for vulnerable groups.

The PNG National Anti-Corruption Strategy 2010-2030 supports Vision 2050 and the SDGs by recognizing corruption as a significant barrier to development, setting an overarching strategy to guide national efforts to tackle corruption, and calling for detailed implementation plans to address key action areas through prevention, law enforcement, international cooperation, leadership, coordination, and monitoring activities. GoPNG is responsible for the overall leadership of the Strategy.

The Cabinet endorsed the National Anti-Corruption Plan of Action 2020-2025 in October 2020, the second implementation plan under the National Anti-Corruption Strategy. The implementation plan contains fifteen work programs for combating corruption. The National Anti-Corruption Taskforce coordinates and oversees the implementation of the Plan and is co-chaired by the Secretaries of the Department of Prime Minister and NEC and the Department of Justice and Attorney General. The UN, funded by the European Union as part of the EU-PNG Partnership for Good Governance Programme, supports these development priorities under an Anti-Corruption Project.

The national legal framework to prevent and combat corruption is relatively comprehensive. However, GoPNG and the UN have identified the need for further anti-corruption legal reform, including whistleblower protection, rights to information, and asset recovery reforms. Implementing existing anti-corruption laws against grand and political corruption requires further strengthening. While the Fraud Courts routinely hear prosecutions of fraud and corruption offences, enforcement of anti-corruption legislation is hampered by sustained, gross under-resourcing of integrity institutions.

Integrity institutions directly involved in the operational work of preventing and countering corruption include the Royal PNG Constabulary, Office of the Public Prosecutor, ICAC, Investment Promotion Authority, Financial Analysis and Supervision Unit, Ombudsman Commission, National Procurement Commission, Auditor-General's Office, Internal Revenue Service, Commissions of Inquiry, the Judiciary and the Department of Justice and Attorney General. These institutions urgently need more significant resources, independence, and inter-agency collaboration to strengthen PNG's law and order and anti-corruption efforts.

The ICAC is the newest of these institutions. The Constitution was amended in 2014 to allow for the establishment of the Commission. The Organic Law came into force in 2021, and the first Commissioner and Deputy Commissioners were appointed in 2023. The Commission is tasked with preventing and reducing corruption, conducting investigations and, in certain circumstances, prosecutions, cooperation/coordination with other public and private sector agencies, and international cooperation.

PNG ratified the UN Convention Against Corruption in 2007 and has been working with the UN Office on Drugs and Crime since 2009 to review the implementation of the Convention. This mechanism allows each state party to be reviewed periodically by two other state parties. The first cycle review, completed in PNG in 2012, focused on anti-corruption criminalization, law enforcement, and international cooperation. The second review cycle is focused on prevention and asset recovery and is currently underway, with a country visit having taken place in May 2022. The reviews identify implementation gaps in each focus area and make findings and recommendations, including proposals for technical assistance needs, to enhance PNG's anti-corruption efforts in line with

international standards. Executive summaries of reviews are published, and complete reports are published at the discretion of GoPNG.<sup>25</sup>

The Financial Action Taskforce/Asia-Pacific Group on Money Laundering is conducting a Mutual Evaluation of PNG throughout 2023/2024, including evaluating the effectiveness of the anti-money laundering and counter-financing of terrorism regime. The limited enforcement of the legal framework in these areas and the poorly defined processes and systems to investigate money laundering and proceeds deriving from transnational organized crime and corruption highlight the need to further strengthen PNG's anti-money laundering regime.

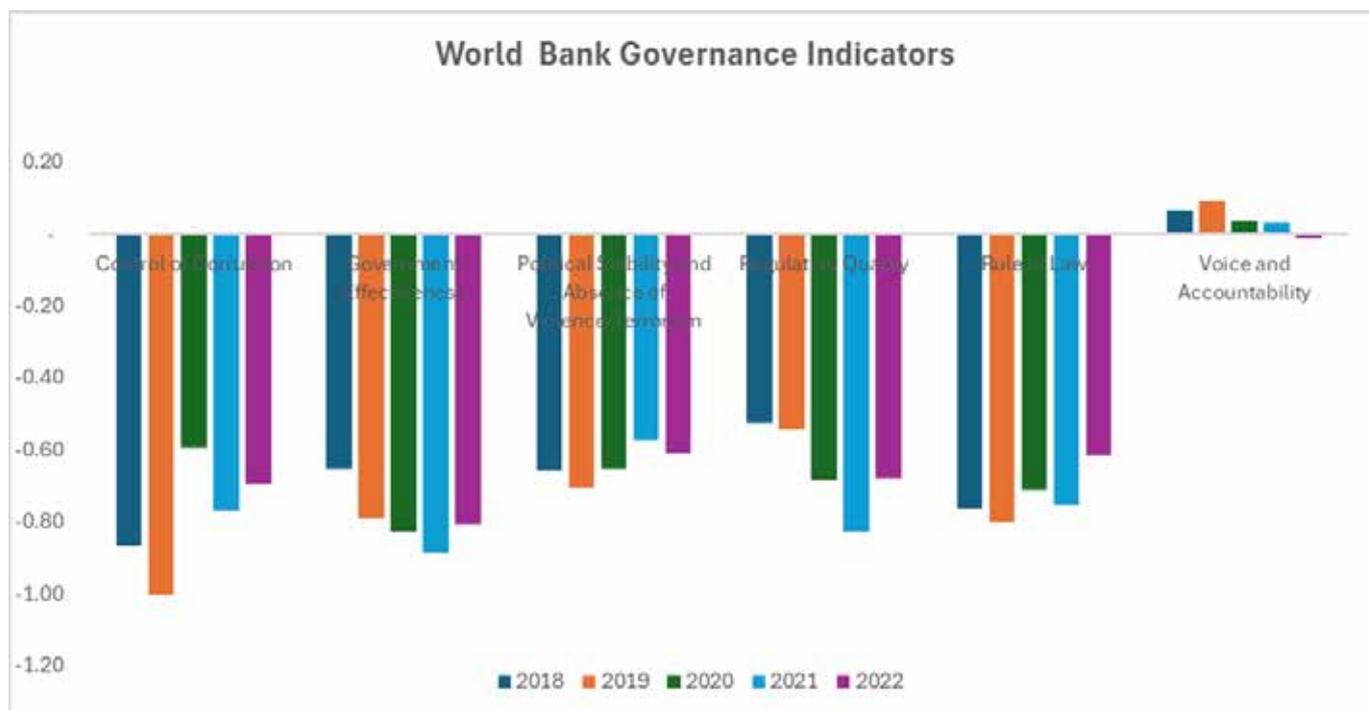
The Transparency International Corruption Perception Index does not measure the actual extent of corruption; it is a ranking based on perceptions of how much corruption occurs in a country's public sector. Although some commentators have criticized methodological issues and usage practices connected with the Index,<sup>26</sup> the Index garners public attention. It can be a practical rallying point to encourage policy change or to recognize perceived progress. In 2023, PNG ranked 133 out of 180 countries, compared with 130 in 2022, and scored 29/100 in 2023, compared with 30 in 2022 (0 indicating highly corrupt to 100 indicating very clean).

Based on survey data collected during the first quarter of 2021, the Global Corruption Barometer indicates that 96 percent of survey respondents think corruption is a big problem in PNG.<sup>27</sup> Further, 57 percent of survey respondents were offered a bribe in exchange for their vote in the last five years. Also, 54 percent of survey respondents who used public services in the previous 12 months paid a bribe. Most survey respondents (67 percent) think regular people can make a difference in the fight against corruption.<sup>28</sup>

#### 4.1.6 World Bank governance indicators

World Bank Governance Indicators are ranked across six categories of governance performance ranging from -2.5 (weak) to 2.5 (strong). PNG's best performance is in Voice and Accountability, which is positive. However, Voice and Accountability have declined since 2018. The Control of Corruption has deteriorated since 2020 to a lower unfavourable rating of -0.70. Regulatory quality remained the same as in 2020. Improvements have been seen since 2020 in Government Effectiveness, Political Stability and Absence of Violence/Terrorism, and the Rule of Law. However, these indicators were still negative. PNG's worst performance continues to be Government Effectiveness, which has declined significantly since 2015.<sup>29</sup>

**FIGURE 5: WORLD BANK GOVERNANCE INDICATORS: VOICE, CORRUPTION AND REGULATORY QUALITY**



Source: World Bank Governance Indicators

<sup>25</sup> See United Nations Office on Drugs and Crime, PNG Country Page, <https://www.unodc.org/unodc/en/corruption/country-profile/countryprofile.html?CountryProfileDetails=%2Funodc%2Fcorruption%2Fcountry-profile%2Fprofiles%2Fpng.html>

<sup>26</sup> See, for example, Pornanong Budsaratragoon and Boonlert Jitmaneroj: A critique on the Corruption Perception Index: An interdisciplinary approach. <https://www.sciencedirect.com/science/article/pii/S0038012118301411#bib16>

<sup>27</sup> Transparency International: Global Corruption Barometer Pacific 2021. [https://images.transparencycdn.org/images/2021\\_Report\\_GCB-Pacific\\_EN-WEB-reduced-size-v2.pdf](https://images.transparencycdn.org/images/2021_Report_GCB-Pacific_EN-WEB-reduced-size-v2.pdf)

<sup>28</sup> <https://www.transparency.org/en/countries/papua-new-guinea>

<sup>29</sup> <http://info.worldbank.org/governance/WGI/>

#### 4.1.7 Institutional and governance issues

PNG's 2022 World Bank Country Policy and Institutional Assessment score, which assesses the quality of policy and institutional frameworks in economic management, structural policies, social inclusion, equity, and public sector management, has remained approximately the same since 2020. On a scale of 1 (low quality) to 6 (high quality), PNG's average score across these areas was 2.8 in 2022.

The World Bank notes that the socio-political environment, combined with weak enforcement of law and order, has been responsible for a proliferation of corruption and rent-seeking behaviour. Significant elements of a rentier state have emerged, with what could be characterized as attempts at state capture by various local and foreign actors and the misappropriation of public resources.<sup>30</sup> Considerable public attention has been directed at the oil, gas, and mining industries, with essential questions about the limited transparency of projects' contractual arrangements. The attention is also focused on the adequacy of benefits that accrue to local landowners, businesses, and government and the public sector's capability to negotiate complex agreements and monitor and enforce their provisions.

Poor governance arrangements and a lack of transparency can create opportunities for graft, misappropriation, and resource sector outcomes that do not serve the best interests of the PNG public. However, even where such challenges are overcome, most resource extraction projects still present the government with significant informational hurdles in its attempt to monitor activities and calculate the payments owed to it. The quality of resource governance is assessed based on institutional and legal settings, reporting practices, safeguards and quality controls, and the enabling environment. The Natural Resource Governance Institute's Resource Governance Index ranks PNG 39 out of 58 resource-rich countries, classifying it as 'weak' and placing it only a short distance away from 'failing'.<sup>31</sup>

According to the World Bank, an overarching and consistent framework for determining PNG's economic policy must be present. Weak governance structures, limited coordination, and shortfalls in public sector capacity make the policy-making environment somewhat opaque, contributing to significant divergence between legislation, policy, and implementation. Policymaking in PNG is informed and driven by a medley of financial advice (of varying quality) provided to the government, the personal political strength of the senior civil servant whose department is responsible for a policy area, and the political realities in the country. The public sector's track record of varied and often limited implementation effectiveness adds

complexity, even when good policies and political appetite align well.

The World Bank points out that elements of success evident across the country provide resilience to institutions and are helping to create momentum for improved service delivery. Service delivery may be fragmented, but local hospitals, clinics, and schools function alongside quality provincial, urban, district, and LLG structures. There is also capable leadership in departments, the private sector, civil society, churches, and social services, as well as law and justice in urban settlements. The province, district, LLG, and ward roles are being redefined following a 2015 review of the country's Organic Law on Provincial and Local-level Governments, and city authorities are emerging with greater capacity.

While more should be done to strengthen institutions and governance in the resource sector, PNG's ongoing participation in the Extractive Industries Transparency Initiative, which seeks to improve sector transparency and accountability, is a step in the right direction. These factors could see PNG emerge with more effective governance over time.

In the absence of fiscal and public financial management frameworks, large flows of resource revenues into public coffers can be susceptible to misappropriation and misallocation. They can also be a source of institutional weakness. Unlike taxation revenues, resource rents are rarely attached to strong political accountabilities, such as providing health or education services. Rents arrive at both central and local levels in the hands of elites with high political discretion over expenditure. They are commonly channelled to the local level via development budget projects rather than recurrent spending. They travel into institutional arrangements dominated by individual leaders, enabling the return of political favours and rents (kickbacks) to officeholders and patrons. These arrangements continue unabated due to poor implementation/lack of transparency and accountability mechanisms across government, ultimately detrimental to public expenditure quality.

This institutional weakness manifests in poorly conceived projects without the associated recurrent expenditure to support their ongoing staffing, operation, and maintenance. This weakness is a familiar experience among PNG's many underfunded and understaffed health centres and school classrooms. It is also reflected in the 'build-neglect-rebuild' investment pattern in local road construction. Inadequate infrastructure and, among other things, weak capacity in the government's provision of law-and-order services were identified as crucial impediments to private sector development.<sup>32</sup>

<sup>30</sup> A rentier state is a state which derives all or a substantial portion of its national revenues from the rent paid by foreign individuals, concerns or governments (Wikipedia).

<sup>31</sup> World Bank, 2018. PNG Country Diagnostic, 97-105

<sup>32</sup> World Bank, PNG Country Diagnostic, 97-105

NEC and cabinet members have been expanded by dividing roles among multiple small ministries and allocating roles to coalition partners. Each role offers expandable rent-seeking opportunities but raises difficulties in achieving executive and policy coherence. The centralizing forces of government alongside the general fragmentation of PNG's political landscape means that opposition ranks can become thin and struggle to present a clear, unified message, limiting the effectiveness of the opposition's role in providing checks and balances. Parliamentary debate and committees are sidelined, and policy consensus can become largely unnecessary: there is little opposition to the passage of NEC decisions.

The central government directly controls statutory authorities and SOEs, and their proliferation has increased centralized power. Statutory authorities and SOEs have tended to have appointed boards and officials with direct linkages to central government actors, raising challenges for their governance. For instance, contracting and other discretions can be expanded by this means, being less subject to official scrutiny or integration into broader policy. Furthermore, revenues (or SOE dividends) can be transferred without public scrutiny.

Some emergent examples have been positive, but centralization has yet to deliver notable coordination gains. Executive and other powers the Department of Finance accrued have enabled them to put legislation and integrated financial management systems into place, improving visibility across other central and subnational agencies. Policy coordination has been somewhat enhanced through the Alotau Accords. Analytic capability and grant allocation mandates in the (recently re-established) National Economic and Fiscal Commission have rationalized function assignments and grants to the provincial government. Some agencies (i.e., education) have been better able to leverage central funds, directing them from the centre to local facilities, and have thus performed better than others (e.g., health).<sup>33</sup>

High-level support for district-focused decentralization has seen new arrangements introduced that have boosted the already-rising influence of Open MPs. Following independence, PNG's rurally dispersed population, combined with long-running inadequacies in providing infrastructure and services by the central government, led to a growing call for greater decentralization of service delivery. At the same time, the fragmented political landscape and governments' vulnerability to no-confidence votes were affording Open MPs increasing political clout. In the early 2010s, this culminated in the Prime Minister and Chief Secretary overseeing the institutionalization of Open MP power in the District Development Authority. District Development Authorities inherited the basic institutional structures of previous 'Area Authority' and Joint District Planning and Budget Priorities Committee arrangements, giving Open MPs a central and influential position in allocating constituency development funds. Open

MPs were now in control of DSIP grants, which had risen from a mere K10,000 in 1982 to K10 million per annum in 2018, twice the PSIP grant allocation received by Provincial MPs in their similar role in provincial-level governments. These grants are an essential facilitator of rent-based provision pacting.

However, this failure is due to the minimal accountability tied to the service delivery objectives that the grants were initially designed to achieve and the generally limited capacity of subnational governments. Despite leading to some success, these relatively new arrangements have left Open MPs largely unaccountable for translating crucial scarce funds into service delivery outcomes in their districts. The arrangements funnel funds through alternative mechanisms to recurrent budgets – limiting transparency, accountability, and the capability of subnational governments. While procedures exist for reporting related expenditures, few MPs submit such acquittals, and even these are typically unaudited. No one other than their electors will hold them to account for failed expenditures and projects or failure to acquit funds. Prosecution for diversion of funds is rare.

In some cases, these grants have delivered dividends, with roads and local facilities being built in the districts where they previously would not have been. However, there needs to be more access to information, few incentives to perform, no contesting of plans, and poor coordination. Also, unsound investment choices are commonplace. This issue has been fundamental to the sub-par delivery of public services and infrastructure beyond PNG's urban centres.<sup>34</sup>

## 4.2 Economic transformation analysis

### 4.2.1 Structure of the Papua New Guinea Economy

One-third of PNG's GDP comes from the mining and quarrying sector. In addition to the Porgera goldmine restarting operations in December 2023, PNG now has three LNG projects – the P'nyang gas project (agreement signed in 2022), the PNG LNG, which began construction in 2011 and production in 2014, and the Papua LNG, which is expected to begin construction in 2024 and production in 2028.

As shown in the table below, while most sectors are declining, the mining and quarrying sector has expanded. Agriculture, fishing, and forestry are the second highest contributors to GDP at 17.6 percent and mainly fall within the subsistence and informal economy, where small-scale producers dominate. The third highest is wholesale and retail trade at 9.4 percent of GDP, including businesses owned and operated by expatriates. The other sectors that contribute more than five percent to GDP are administrative and support services (7.5 percent), construction (6.2 percent), and real estate (5.7 percent). The public sector accounts for 4.7 percent of GDP.

<sup>33</sup> World Bank, PNG Country Diagnostic, 97-105

<sup>34</sup> World Bank, PNG Country Diagnostic, 97-105

**TABLE 3: SECTORAL CONTRIBUTION TO GDP FOR PNG, 2006 TO 2022, SELECTED YEARS (%)**

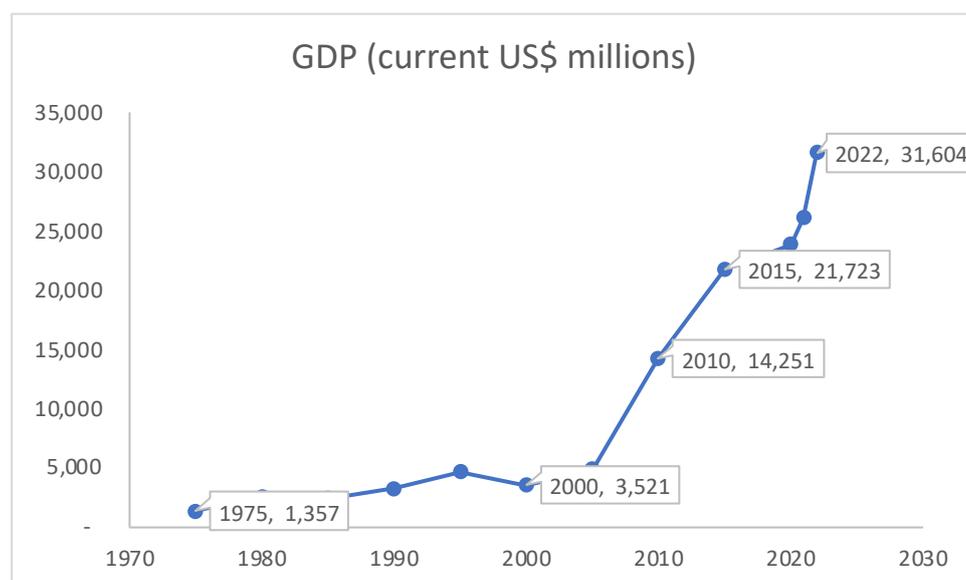
	2006	2010	2015	2020	2021	2022
Agriculture, Forestry and Fishing	21.0%	20.2%	18.3%	19.6%	19.9%	17.6%
Mining and Quarrying	27.4%	21.0%	25.3%	25.3%	26.5%	33.2%
Manufacturing	2.4%	2.5%	1.9%	1.8%	1.8%	1.7%
Electricity, Gas, Steam and Air conditioning supply	0.8%	0.8%	0.9%	0.9%	0.8%	0.7%
Water supply, sewage, waste management	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Construction	5.6%	9.7%	8.2%	6.2%	6.3%	6.2%
Wholesale and retail trade	11.9%	11.5%	10.1%	10.3%	10.2%	9.4%
Transport and storage	2.6%	2.9%	2.4%	2.1%	2.0%	2.0%
Accommodation and food service activity	2.2%	1.9%	1.9%	1.7%	1.6%	1.5%
Information and communication	0.9%	1.8%	1.7%	1.8%	1.9%	1.8%
Financial and Insurance Activities	2.7%	3.7%	3.2%	2.4%	2.3%	2.0%
Real Estate Activities	6.4%	6.3%	6.3%	6.9%	6.5%	5.7%
Professional, scientific and technical activities	0.8%	1.1%	1.2%	1.1%	1.0%	0.9%
Administrative and support service activities	6.0%	7.3%	7.5%	8.5%	8.0%	7.5%
Public administration and defence, compulsory social sect	4.7%	4.5%	5.2%	5.6%	5.4%	4.7%
Education	2.3%	2.1%	3.0%	2.9%	2.8%	2.4%
Human health and social work activities	1.6%	1.8%	2.0%	2.2%	2.2%	1.9%
Arts, Entertainment and recreation	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Other service activities	0.3%	0.6%	0.7%	0.5%	0.5%	0.5%
Activities of households as employers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Papua New Guinea, National Statistical Office

The total value of goods and services produced in the PNG economy was \$31.6 billion in 2022 compared with \$26.1 billion in 2021. PNG's GDP value is ranked 100 among 177 countries, with Honduras at 99 and Cambodia at 101. For comparison, the USA is ranked number one with a \$25.5 trillion economy, with China and Japan at two and three, respectively.

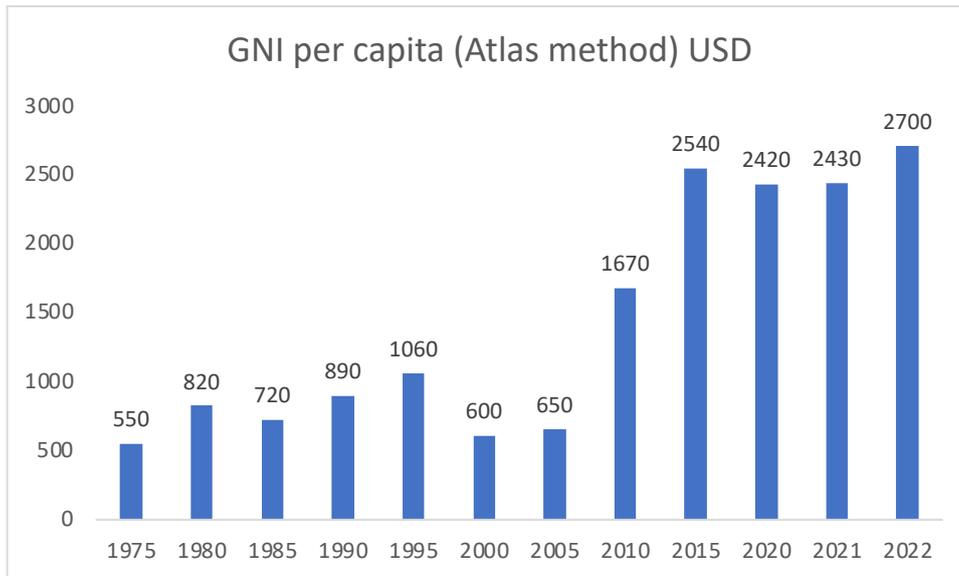
PNG's GNI per capita (Atlas method) is \$2,700 for 2022, an 11.1 percent increase from the \$2,430 recorded for 2021. The Atlas GNI per capita ranks PNG in the lower middle-income country category. The LNG projects have helped to transform PNG from a low-income country of \$570 per capita in 2000 to a lower-middle-income country.

**FIGURE 6: PNG GDP 1975 TO 2022, SELECTED YEARS (US\$ MILLIONS)**



Source: World Bank World Development Indicators

**FIGURE 7: GNI PER CAPITA (ATLAS METHOD), 1975 TO 2022, SELECTED YEARS, USD**



Source: World Bank World Development Indicators

## Macroeconomic Indicators

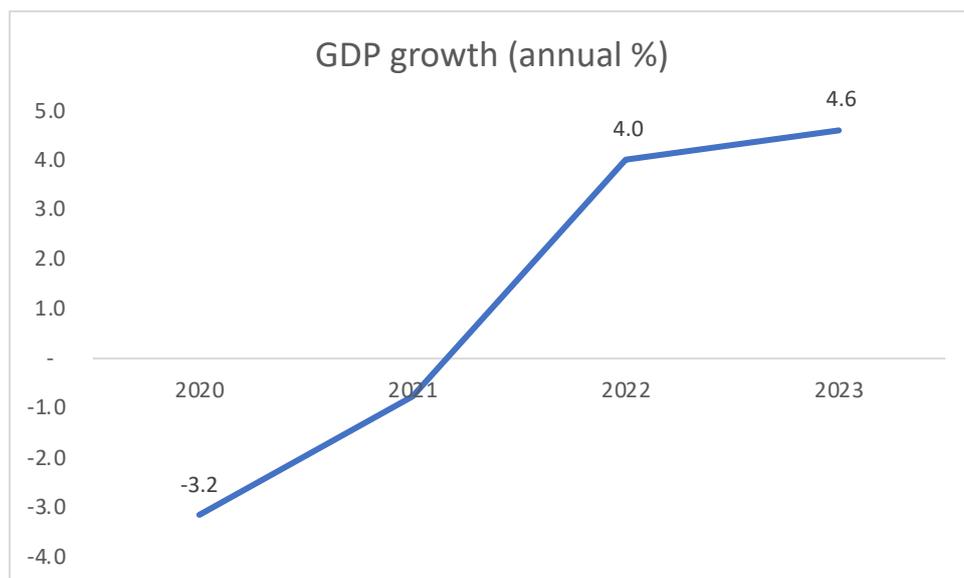
### Gross domestic product

PNG's GDP is estimated to have grown by 4.0 percent in 2023 compared with 4.6 percent in 2022. This outturn was driven by a strong performance in the non-resource sector supported by an increase in public spending, strong business activity, and an 8.9 percent expansion in credit to the private sector. By contrast, the resource sector contracted owing to continued delays in reopening the Porgera gold mine throughout the year, among other production challenges. However, PNG outperformed the global and Asia-Pacific growth averages for the second consecutive year. GoPNG's release of the MTDP IV in 2023 ensures that the economy grows sustainably and inclusively within a stable social and economic environment.

Notwithstanding widespread violence and looting in urban areas in January 2024 and the associated downside risks, the outlook for PNG remains positive. With the opening of the Porgera mine, the commencement of the Papua LNG project and other resource projects in 2024, sustained growth in agriculture and services, and the PNG Connect infrastructure programme continuing apace, the country is projected to grow at 4.3 percent in 2024 and stabilize around 3 percent in the coming years. If executed well, the MTDP IV should produce sustainable and inclusive growth outcomes for the country.

Energy and mineral production primarily determine PNG's real GDP growth rate. According to the IMF, the 13.5 percent growth experienced in 2014 showed PNG becoming a significant exporter of LNG. The 5.6 percent growth in 2019 resulted from the recovery of the extractive sector following the 2018 earthquake. PNG has experienced only three years of contraction over the past 20 years – 2.5 percent contraction in 2000 that resulted from terms of trade shock and relaxation of macroeconomic policies, 0.8 percent contraction in 2018 caused by the major earthquake, and 3.8 percent contraction in 2020 resulting from the COVID-19 pandemic.

**FIGURE 8: GDP GROWTH RATE 2020 TO 2023 (%)**

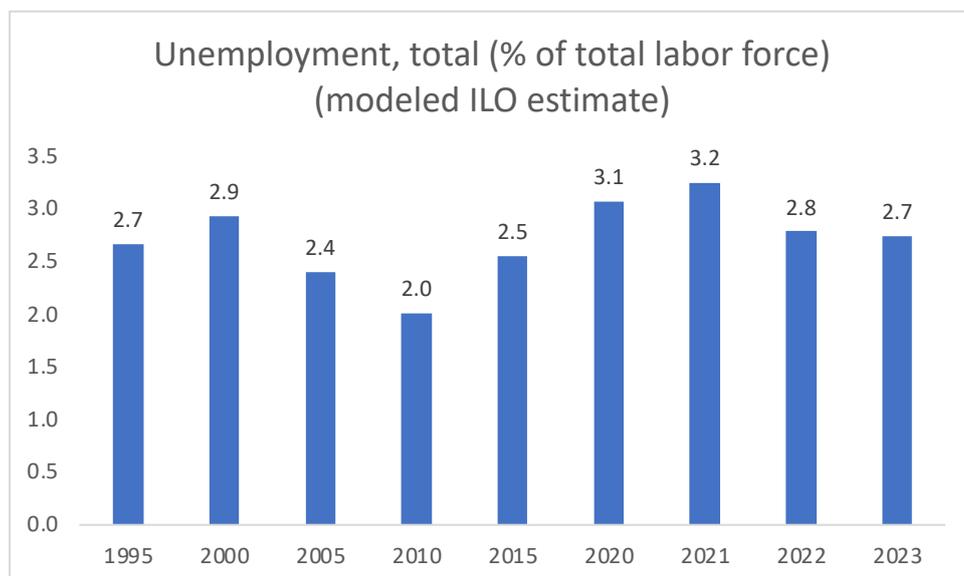


Source: World Development Indicators, PNG Government estimates

## Unemployment

Unemployment averaged 2.5 percent from 2013 to 2023 (International Labour Organization [ILO] estimate). Male unemployment in the ten years to 2023, which averages 3.52 percent, is higher than female unemployment, which averages 1.41 percent. The average employment index for 2010-19 stands at 210, thus showing an increase in employment compared to the 2010 base year. Looking at different industries, the highest average index for the period is for the mining sector, which stands at 245, while the lowest is for financial, business, and other services at 129. However, given that most of the PNG population is rural-based, the high employment index for the mining sector will not significantly impact employment for the masses

**FIGURE 9: PNG, UNEMPLOYMENT RATE (ILO ESTIMATE), 1995 TO 2023, SELECTED YEARS (PERCENT)**



Source: World Bank World Development Indicators

## Inflation

Headline inflation decreased in 2023 relative to 2022. Year-on-year inflation declined to 1.4 percent at the end of September 2023, favouring the 6.3 percent recorded for the same period in 2022. This downtick in inflation reflects a once-off reduction in tuition costs and lower inflation globally. Alcoholic beverages, tobacco, betelnut, food and non-alcoholic beverages, transport, and household equipment all recorded year-on-year declines at the end of the third quarter of 2023, whereas restaurants and hotels and clothing and footwear recorded increased inflation over the same period.

## Fiscal space

The fiscal deficit is estimated to decline slightly in 2023, driven by strong revenue performance. Total tax revenue grew by 12.6 percent to K19,582 million (17.3 percent of GDP), driven mainly by non-resource tax collections, while the total outlay for 2023 was K24,567 million (21.7 percent of GDP). This outturn resulted in an overall fiscal deficit of 4.4 percent of GDP in 2023, which compares favourably with a deficit of 5.6 percent in the previous year and is consistent with the authorities' fiscal consolidation efforts. The primary deficit also decreased by approximately a percentage point to just about 2.2 percent of GDP.

The government's plans for further fiscal consolidation and conservative financing strategies are expected to ensure sustainability. However, further fiscal consolidation could become more challenging, as no substantial resource revenue boost from commodity prices is expected in the coming years. Containing expenditure growth becomes more difficult due to the massive human capital and infrastructure investment needs. The government's prioritization of resources for constituency development funds over other public administration programs leaves the public administration with lower funding, less ability to control capital spending in sectors, and less ability to make budgetary trade-offs with recurrent spending. The Integrated Financial Management System rollout has opened new opportunities for information and reporting on DSIP and PSIP expenditure, while new technology offers opportunities to monitor outputs.<sup>35</sup>

## Monetary policy and financial sector developments

The Bank of Papua New Guinea (BPNG) maintains a neutral monetary policy stance. It closely monitors exchange rate-induced inflation as the Kina has moderately depreciated throughout the year due to a deliberate policy move toward greater currency flexibility. In September 2023, the bank lowered its Kina Facility Rate by 50 basis points to 3.0 percent due to lower reported inflation. However, liquidity in the banking system remains high and continues to frustrate central bank efforts to influence interest rates. Because of this, the BPNG has announced measures to remove excess liquidity from the system.

Generally, banks are well-capitalized and profitable, with declining rates of non-performing loans. The move to greater flexibility has resulted in Kina's depreciation of 3.17 percent against the US dollar from December 31, 2022, to September 22, 2023. Although better, foreign exchange shortages persist and continue to constrain imports.

GoPNG reformed the 2000 Central Banking Act after an independent advisory group reviewed it at the request of the treasury minister. The reform reduced the power of the BPNG Governor, whom a former deputy governor replaced on an interim basis. The main reforms included:

- External members appointed (non-BPNG staff) to the monetary policy committee
- Reducing the central bank Governor's term from seven to four years
- Limiting the Governor's time at the central bank to two terms.

In addition, GoPNG expanded the monetary policy objective to include employment and non-resource sector economic growth and inflation-targeting. The reform also increased the temporary advances for the government to borrow from the central bank.<sup>36</sup>

An analysis of PNG's financial institutions from 2013 to 2015 shows that the ratio of private credit by deposit money banks to GDP is 25 percent. The Bank lending-deposit spread, the lending rate minus the deposit rate, is 9.1 percent. Also, the Bank Z-score, which approximates the probability that an economy's banking system defaults, is 6.4 percent. The financial services market includes commercial banks, finance companies, micro-banks, savings, loan societies, mobile network operator(s), superannuation funds, investment managers, superannuation fund administrators, life insurance companies, general insurance companies, and one development bank. The IMF found that 70 percent of people borrow money, mainly from wantoks (41 percent), followed by moneylenders (24 percent) and formal institutions (5 percent). Informal moneylenders are generally risky and expensive and charge high-interest rates of approximately 40-50 percent per fortnight.

Government borrowing from the banking sector continues to be a significant driving force of the money supply growth, which has increased substantially in recent quarters. However, the government's fiscal consolidation plan in the 2023 National Budget may strain borrowing from the financial sector over the medium term. Commercial credit has been picking up as economic recovery is underway, with the demand for institutional credit increasing since the first half of 2021.<sup>b</sup>

## External sector and the balance of payments

The BPNG anticipates a current and capital account surplus of K19,925.8 million in 2023, primarily driven by mineral exports. The financial account recorded a deficit of K20,900.7 due to an outflow of funds to offshore foreign currency accounts for offshore investments and external loan repayments by mineral companies, including LNG project partners. Gross international reserves for 2023 are estimated at \$3.4 billion compared with \$4 billion in 2022. This amount is sufficient for 6.7 months of goods and services import cover. PNG experienced a current account surplus over the past few years, averaging 23 percent of GDP. However, despite this sizeable surplus, the country's non-resource sector continues to face a shortage of foreign exchange.

PNG is the signatory to several treaties, agreements, and pacts that give the country's manufactured goods preferential access to various export

<sup>35</sup> World Bank Papua New Guinea Economic Update 2023 <https://www.worldbank.org/en/news/press-release/2023/03/29/as-papua-new-guinea-returns-to-economic-growth-world-bank-highlights-economic-case-for-action-on-gender-equality>

<sup>36</sup> Economic Intelligence Unit Papua New Guinea Country Report, April 2022

markets. As a result, PNG has duty-free and reduced tariff entry to some of the largest markets in the world, for example, the EU under the Cotonou Agreement and the United States Generalized System of Preferences Program, which provides duty-free treatment for almost 3,500 products from PNG and its neighbours (Vanuatu, Solomon Islands, Kiribati, Fiji, Samoa, Tonga, Indonesia, Philippines).

PNG conducts feasibility studies to inform two free-trade agreements with China and Australia. PNG has long-standing ties with Australia, but China's influence has grown over the past decade, as has the influence elsewhere in the Pacific. The two countries are PNG's largest trade partners, followed by Japan and Singapore. China has provided a K1m (\$280,000) grant to PNG's Trade Office to complete a feasibility study. A trade deal with China would open several potential economic benefits for PNG. A trade deal with the Pacific's largest economy would chiefly provide geopolitical advantages for China. China is a significant and growing trade partner with which PNG maintains a large and expanding surplus. Bilateral trade is driven by PNG's shipments of LNG, which expanded rapidly following the completion of the PNG LNG project in 2014. PNG's primary goal will be to broaden its exports to Australia, which is currently dominated by gold, and then process them. Australia's motivations are chiefly geopolitical. It seeks to cement historical ties with PNG as a bulwark against Chinese influence.<sup>37</sup>

### Human development, poverty, and equality

PNG's Human Development Index (HDI) value for 2022 is 0.568, placing the country in the medium human development category at 155 out of 189 countries and territories. Between 1990 and 2022, PNG's HDI value increased 49.5 percent from 0.380 to 0.568. PNG's life expectancy is now 66 years, and the expected years of schooling are 11.1 years. PNG's GNI per capita increased to \$3,710.<sup>38</sup>

The most recent survey data publicly available for PNG's Multidimensional Poverty Index estimation is from 2016/2018, which shows that 56.6 percent of the population (5.6 million people in 2021) are multidimensionally poor. At the same time, 25.3 percent are classified as vulnerable to multidimensional poverty (2.5 million people in 2021),<sup>39</sup> and 25.8 percent

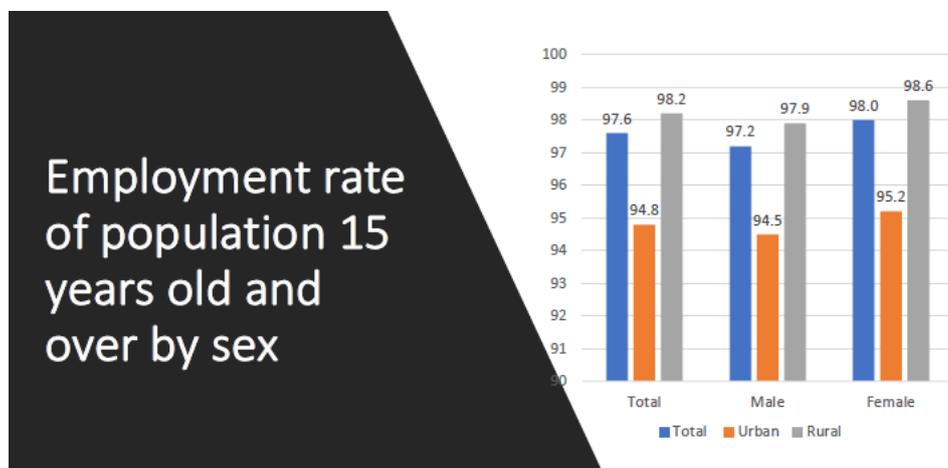
of the population is in severe multidimensional poverty. Regarding the breadth of deprivation (intensity), the average deprivation score experienced by people in multidimensional poverty is 46.5 percent in PNG. The Multidimensional Poverty Index shows that the share of the multidimensionally poor population, adjusted by the intensity of the deprivations, is 0.263. The contribution to multidimensional poverty comes from deprivations in the standard of living (65.8 percent), deprivations in education (30.1 percent) and health (4.6 percent). Consequences of multidimensional poverty include reduced access to critical necessities of life, reduced resilience to various forms of shocks such as natural disasters, civil unrest, or armed conflict, and reduced access to justice and higher potential inequalities in participation.

### Labour market

The 2022 SDES indicates that the labour force participation rate of the population 15 years old and over is 51.8 percent, of which 53.1 percent are male and 50.6 percent are female. The employment rate of the population 15 years old and over is 97.6 percent, with the majority being female and in rural areas.

The most common occupations are agriculture, fishing, and forestry, which are 37.3 percent (36.4 percent male and 38.3 percent female), followed by service and sales workers 23.3 percent (17 percent male and 29.9 percent female). Most employment in 2022 comprised paid wage/job workers at 54.5 percent (60.3 percent male and 48.3 percent female). The self-employed workers in farming, gardening, and fishing comprise 33.8 percent of the workforce in 2022 (29.3 percent male and 38.7 percent female). The unemployment rate in PNG is 2.4 percent, broken down by gender: 2.8 percent of males and 2 percent of females are unemployed. The main reasons for not seeking employment are in-school or training – 31.3 percent (males, 36.3 percent and females, 26.4 percent) and family responsibilities or housework – 25.2 percent (15.2 percent and 35 percent). In 2022, 21.1 percent (23.6 percent males and 18.7 percent female) of the persons aged 15 years old and over had no job and were not seeking employment but were available for work. The SDES found that in 2022, 12.2 percent of children 10 to 17 years old were working.<sup>40</sup>

**FIGURE 10: EMPLOYMENT RATE OF POPULATION 15 YEARS OLD AND OVER BY SEX**



Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

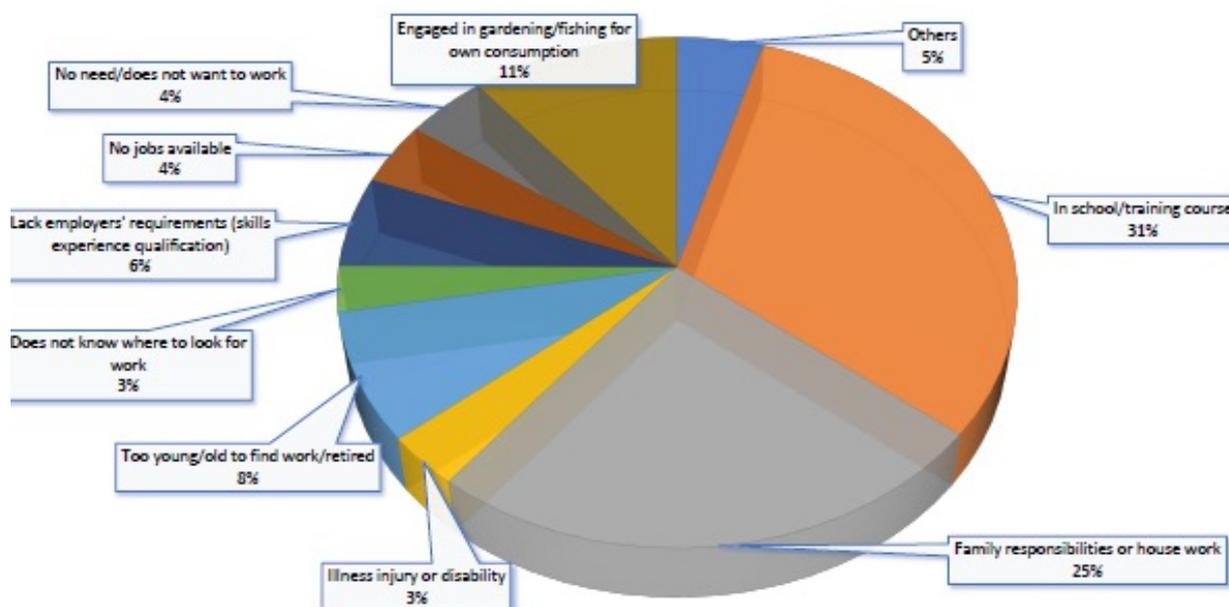
<sup>37</sup> Economic Intelligence Unit (2024) Papua New Guinea Country Report, January 2024

<sup>38</sup> <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>

<sup>39</sup> PNG.pdf (undp.org)

<sup>40</sup> PNG National Statistical Office Socio-demographic Economic Survey, 2022

**FIGURE 11: PROPORTION OF THE POPULATION 15 YEARS OLD AND OVER BY MAIN REASON FOR NOT LOOKING FOR A JOB**



Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

## Social protection

The NPSP 2015-2020 was PNG's first such strategy. The Policy is based on an approach of progressive universality to guide the development of comprehensive social protection that benefits all groups within the country. The initial objective was to implement social protection programmes to address the needs of vulnerable or disadvantaged groups, especially children, youth, women, PWD, elderly persons, and people living with HIV/AIDS. The NPSP referred to lifestyle risks in the following instances:

1. Protecting vulnerable and disadvantaged individuals and groups from unpredictable risks in their lives (one of the five core principles of the Policy)
2. The need to limit risks to livelihoods associated with vulnerability and provide support to disadvantaged individuals, families, and communities
3. Social protection addresses the support needs of individuals and families at times when unpredictable risks, such as illness, disablement, or death of the breadwinner, strike in such a way as to undermine the self-supporting capacity of the individual or family, usually through their own paid or unpaid work.
4. Disasters that pose significant risks to people and communities across PNG
5. The long-term ability of traditional social protection – the 'wantok system' of helping people of their own family – to enhance people's ability to cope with risks appears bleak.<sup>41</sup>

PNG has contributory Social Insurance Programs for Old Age, Work Injury, Sickness, and Maternity. Old Age benefits are for people who worked in wage and salaried employment. Work Injuries are for workers in

enterprises with ten or more employees. Sickness benefits are for those in formal employment, and maternity benefits are for public sector qualifying permanent staff. The two significant funds for old age are the National Superannuation Fund (NASFUND) for private-sector employees and the Public Officers Superannuation Fund for public-sector employees. The Comrade Trustee Fund, formerly the Defence Force Retirement Benefit Fund, is currently the largest pension scheme in the country. In 2009, the Fund made payments of K7,210,403 to 1,817 pensioners.

Work Injury covers medical treatment and a scale of compensation payments linked to the degree of injury. In case of death, a flat-rate amount of K25,000 is payable. For sickness benefits, persons are paid sick leave for up to nine days, with the provision to accumulate unused credits for three years. Maternity benefits are paid for up to 12 weeks of maternity leave. PNG's non-contributory social protection is the National Disaster and Emergency Services. Benefits are paid to affected populations for disasters and provide temporary relief and assistance during disasters, especially natural calamities in the affected areas. In 2009, PNG's budget provided K360,000 for the resettlement of volcano victims, targeting about 10,000 people. Labour market interventions for social protection include training, volunteer, and development partnership programs to address the lack of skills among rice model farmers and young Papua New Guineans.<sup>42</sup>

## Key Sectors

### Agriculture sector

The agricultural sector provides a livelihood for 85 percent of PNG's rural population, accounting for approximately 17 percent of the GDP. Most agriculture involves subsistence farming for basic needs. The country's main agricultural exports include cocoa, coffee, copra, palm oil, rubber, and tea. However, this sector contributes only 17 percent of total exports.

<sup>41</sup> Government of Papua New Guinea: Department of Community Development & Religion. 2015. National Social Protection Policy 2015-2020. Port Moresby: Government of Papua New Guinea.

<sup>42</sup> Papua New Guinea: Updating and Improving the Social Protection Index, Prepared by George Huenu Wrondimi, Asian Development Bank, August 2012

## Informal economy

The informal economy in PNG is estimated to be K12 billion annually, approximately 20 percent of GDP. Based on the findings of the National Audit of the Informal Economy (2018-19), co-funded by UN Women and GoPNG, around 75 percent of informal economy workers are likely women. The informal economy is approximately 30 percent of the GDP, excluding the mining sector. If we add subsistence farming, the informal economy is about 60 percent of non-resource GDP. Over 80 percent of the labour force is employed in this sector. It is vital to local communities as it provides affordable and accessible goods and services and is critical for food security.

Informal sector economic activities include producing and selling agricultural produce, informal moneylending at an interest rate of 40-50 percent per fortnight, and reselling goods from producers or wholesalers. Over half of the men and women in the sector were over 35, with young people (under 25) making up around 15 percent. The proportion of workers in the informal sector with no education was less than 25 percent. The proportion of workers with post-primary education (beyond Grade 6) was more than 30 percent. In most survey locations, male workers have received slightly more education than women.

## Micro-small and medium enterprises (MSMEs)

The SME Master Plan 2016-2030 positions the SME sector as a significant contributor towards PNG becoming a middle-income country by 2030 and a high-income country by 2050. The Plan aims to support and facilitate SME growth, increasing from 49,500 SMEs in 2016 to 500,000 in 2030. The role of GoPNG for the first five years of the plan is to provide financial support, provide SME protection through enabling legislation, create a conducive environment for SMEs to develop, create linkages with all stakeholders, provide infrastructural development, and facilitate the catalytic projects in each province.

The Asian Development Bank (ADB) and the World Bank are also implementing projects to develop MSMEs in PNG. The World Bank project aims to facilitate access to sustainable credit for SMEs, increase the number of formal sector SMEs, and increase total employment and revenue generated by SMEs. The proposed ADB project aims to facilitate financial inclusion and entrepreneurship by strengthening the capacity of both lenders and borrowers.

## Transport sector

The transport sector in PNG is split into three subsectors: roads, maritime, and aviation. Unfortunately, infrastructure in all three subsectors has fallen steadily into disrepair over the past two decades. The condition threatens economic development and limits access to markets and social services from much of the population, resulting in high costs for business activities. The decline in transport infrastructure can be explained by:

1. PNG's challenging topography and climatic conditions
2. extended periods of funding constraints to support maintenance requirements

3. weak institutional and management capacity
4. the limited number of able local and international private contractors.

Road transport is the dominant passenger travel mode. However, inadequate land connections between several mainland provinces and the island nature of PNG highlight the essential roles of domestic aviation and coastal shipping.

## Connect PNG Road Improvement Project

In October 2020, GoPNG developed a 20-year master plan for PNG roads called the Connect PNG Economic Roads Development Plan 2020-2040. It is being used to guide the development of vital road links in the country. This plan is a revised version of the previous government's PNG Economic Road Network Development and Maintenance Plan 2018-2037. The program aims to connect remote communities across PNG and increase access to vital services and untapped economic potential in agriculture and agri-businesses at a combined cost of K20 billion (\$5.6 billion). Phase 1 of this plan is underway and was allocated more than K700 million (\$196 million) in the 2022 National Budget. Phase 2 is expected to commence from 2027 to 2034, and Phase 3 soon after. This initiative has a financing commitment of K20 billion (\$5.6 billion) through external arrangements involving trade and development partners, including the Governments of Australia, Japan and New Zealand, the ADB, World Bank, EU, EU Investment Bank, China Exim Bank and India Exim Bank.<sup>43</sup>

The ADB is also working with PNG to upgrade the Highlands Highway, which runs through the country's most populous region, under the Sustainable Highlands Highway Investment Program, which started in 2020. The highway connects all provinces in the Highlands region to the country's largest seaport in Lae, Morobe province. It has been the economic lifeline supporting an area contributing a third of the national GDP.

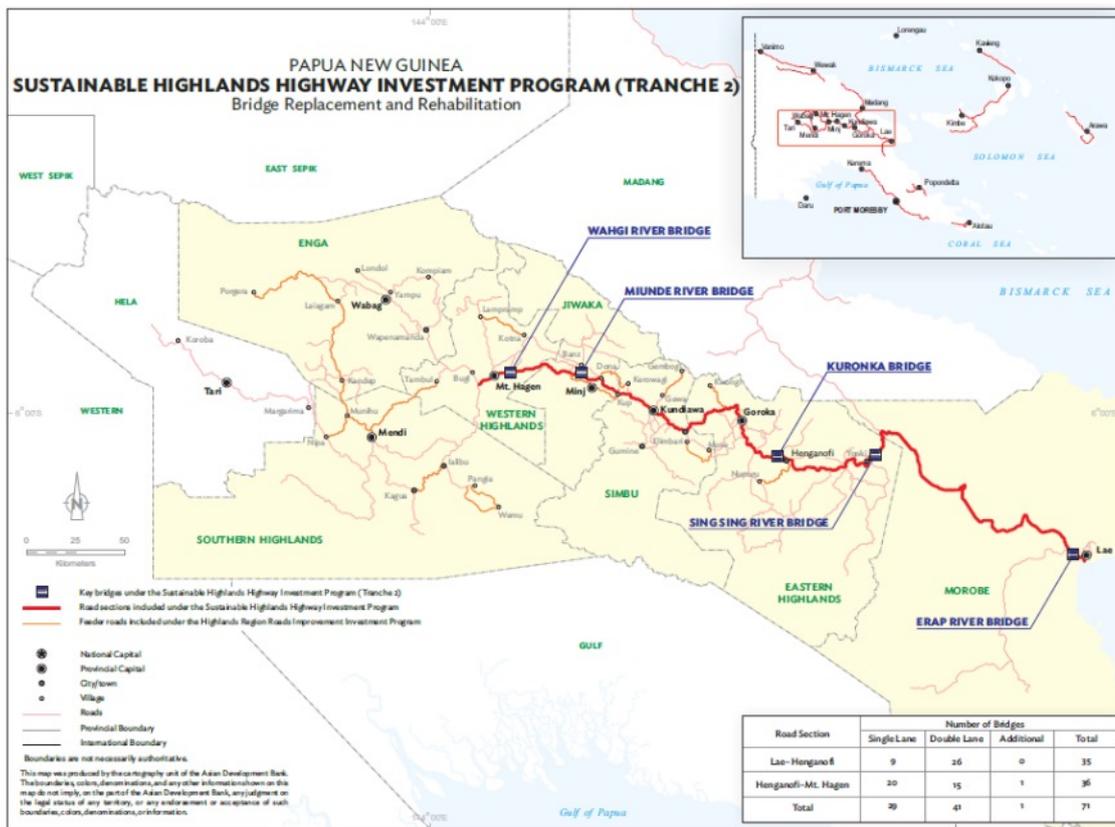
PNG allocated funding of K66 million (\$18.5 million) through the Works Department to rehabilitate the Lae to Bulolo Highway in Morobe province. This highway connects the resource-rich Bulolo district with the Hidden Valley mine, PNG Forest Products, Zenag Chicken Farm, and coffee and cocoa farmers to access markets via Lae. It also presents the opportunity to reopen the Garaina Tea plantation once road connections are completed within the district and improve market access for small-holder vegetable farmers.<sup>44</sup> Aligned with the Connect PNG program, the Transport Sector Support Program between PNG and Australia saw four provincial highways upgraded in 2022.<sup>45</sup>

<sup>43</sup> Plan can be found at [https://www.works.gov.pg/files/DoW\\_NRNS.pdf](https://www.works.gov.pg/files/DoW_NRNS.pdf) Also See article at <https://postcourier.com.pg/road-master-plan-for-png/>

<sup>44</sup> See article at <https://postcourier.com.pg/k66m-for-lae-bulolo-road/>

<sup>45</sup> See article at <https://www.thenational.com.pg/upgrades-set-for-highways/>

**FIGURE 12: PNG SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM (TRANCHE 2)**



Source: Asian Development Bank, August 2021. It can also be found at <https://www.adb.org/projects/48444-004/main>

**Natural resources sector**

Mining gold, nickel, silver, cobalt, petroleum, and gas sectors are vital for PNG’s economic portfolios. Extractive industries contribute 29 percent to GDP, 89 percent to exports, and 10.1 percent to government revenue. PNG has exported crude oil since the early 1990s and launched a commercial LNG operation in 2014. The LNG project started with an initial \$19 billion investment, but its capacity exceeded expectations, reaching eight million tonnes annually. A re-certification and upgrading of natural gas reserves should enable the project to sustain these higher production rates.

PNG is one of the world’s top ten gold producers, with its largest gold mines being Lihir, Ok Tedi, and Porgera. A portion of gold and silver production is refined in-country and exported in dore bars to refineries in Australia and Japan. In contrast, copper is exported as a concentrate to Japan, Germany, and Australia.

GoPNG signed a deal on 22 February 2022 with US-based energy giant ExxonMobil and its partners to develop the P’nyang gas field in Western Province. This project becomes PNG’s third major LNG project, supporting the long-term outlook for investment and exports, following PNG LNG (operational since 2014) and the planned Papua LNG, expected to begin construction in 2024 and production in 2028. After three years of negotiations,

signing the P’nyang agreement will lift investor confidence in PNG. For Exxon and its partners – Santos (Australia) and NOEX (Japan) – the development of P’nyang strengthens its ability to meet Asian LNG demand as the region’s clean energy transition accelerates. Construction, including building a gas export pipeline, begins in 2028, with production expected to start in 2032. The final investment decision on the P’nyang project is anticipated closer to the construction date of 2028.

The terms of the P’nyang agreement include an equity stake of 34.5 percent for PNG (the highest rate of the three PNG LNG projects); a production levy of 3 percent compared with 2 percent for Papua LNG; 5 percent gas for domestic use at a lower price than Papua LNG; and a more generous calculation of royalty and development levies for landowners and regional governments.<sup>46</sup>

The Porgera gold mine, which contributed about 16 percent of mining and quarrying output before its closure in 2020, reopened on December 22, 2023. The mine was closed due to the government’s refusal to renew the Barrick (Niugini) Limited operating license and disagreements over benefits for local stakeholders. The mine has been contentious for environmental and human rights reasons. The Porgera Project Commencement Agreement was signed on December 20, 2023, involving New Porgera Ltd, landowners, and the

<sup>46</sup> Economic Intelligence Unit Papua New Guinea Country Report, April 2022

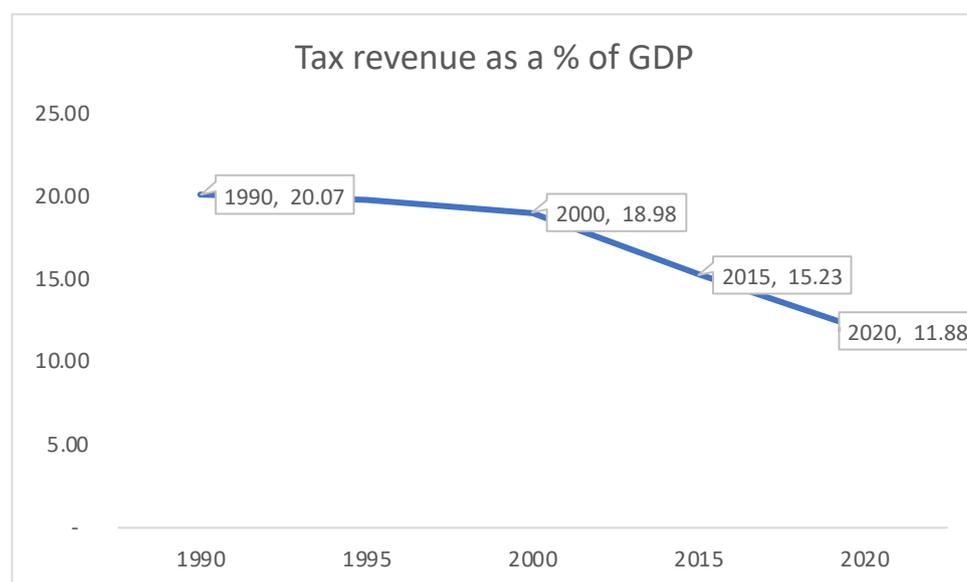
Enga Provincial Government. The agreement delineates the equity structure of New Porgera, with clear benefits outlined for landowners and the Enga Provincial Government. They will receive benefits upon the commencement of gold production, including a 3 percent royalty. The state will start receiving a 30 percent tax upon first gold production and a 2 percent fiscal stability tax, and it will also benefit from spin-off benefits like personal income tax on mine workers. The agreement provides 7.5 percent for Special Mining Lease landowners, 2.5 percent for Lease for Mining Purposes areas, and 5 percent for the Enga Provincial Government. Employment at the mine ramped up to 2,000 and will increase to about 3,000 in the first six months of operation.<sup>47</sup>

## 4.3 Financial landscape analysis

### 4.3.1 Tax revenue

The most recent estimates show that PNG's tax revenue as a percent of GDP declined significantly between 1990 and 2020. In 1990, tax-to-GDP was 20.1 percent of GDP. By 2020, tax-to-GDP was estimated at 11.9 percent of GDP. Tax revenue and grants received by the government increased by 48 percent between 2017 and 2023 in terms of Kina value, amounting to K17.1 billion in 2023. Non-resource revenue at K15.9 billion in 2023 is 93 percent of the revenue received by the government, indicating the government's high reliance on taxes on income, profits, capital gains, and trade. Revenue from resources, which comprises taxes and dividends on mining, petroleum, and gas, amounted to K1.2 billion in 2023.

**FIGURE 13: PNG TAX REVENUE AS A PERCENT OF GDP 2000-2020 SELECTED YEARS (PERCENT)**



Source: World Development Indicators

**TABLE 4: PNG REVENUE AND GRANTS 2017-2023**

	PNG Revenue and Grants 2017-2023						
	(in millions of kina)						
	2017	2018	2019	2020	2021 Prel	2022 Revised	2023 Proj
<b>Total revenue and grants</b>	<b>11,525</b>	<b>14,086</b>	<b>13,681</b>	<b>12,093</b>	<b>13,861</b>	<b>16,416</b>	<b>17,117</b>
Non-resource revenue	10,849	12,657	12,439	11,341	12,845	14,217	15,923
Resource revenue	676	1,429	1,242	752	1,016	2,199	1,194
of which: Mining and Petroleum taxes	114	775	761	183	635	738	694
of which: Mining and Petroleum and Gas dividends	562	654	381	569	381	1,461	500
Other Dividends	-	-	100	-	-	-	-

Source: International Monetary Fund

<sup>47</sup> Economic Intelligence Unit Papua New Guinea Country Report, January 2024

### 4.3.2 Domestic and external public sector borrowing

The Medium-Term Debt Strategy 2018-22 is guided by the legal framework for government borrowing, including the authority to borrow and issue new debt, invest, and undertake transactions on the government's behalf. The overall objective of the Strategy is to "raise the required amount of budget financing and manage the debt portfolio to achieve prudent risk and cost minimization objectives and develop and maintain an efficient market for government securities and diversification of funding sources." Significant strategies to support the debt management objective include:

- maintaining debt at sustainable levels
- maintaining financial risk at prudent levels
- developing and efficiently managing the domestic debt market, which involves broadening and deepening the market in domestic securities and improving the market infrastructure
- developing and managing the offshore commercial market, including the inaugural sovereign bond issuance that will diversify funding sources.

GoPNG borrows in the domestic market through treasury bills and inscribed stock (i.e., bonds) denominated in Kina. The IMF and World Bank data show that Zero-coupon T-bills are issued roughly weekly, with tenors typically six and 12 months. Inscribed stock is currently being issued at fixed rates with maturities of two, 10, and 17 years. These instruments are issued on market terms; there is no captive placement with public or quasi-public investors. Hence, no instruments specifically suit retail investors, although retail investors may acquire T-bills and inscribed stock directly or through commercial banks under the Central Banking Act.

According to the IMF Debt Sustainability Analysis, PNG remains at high risk of debt distress under the Low-Income Country Debt Sustainability Framework, with weak debt-carrying capacity. The IMF notes that public debt enters a downward trend over the medium term, and debt management operations and revenue generation improvements can primarily address the projected temporary breaches of sustainability indicators. The Debt Sustainability Analysis suggests that PNG is susceptible to exports and other shocks, signalling downside risks to the debt outlook in a global environment of high uncertainty. To lower the risk of debt distress and ensure debt sustainability, gradual fiscal consolidation, including boosting revenues, and steadfast structural reforms to promote private sector growth would be needed.<sup>48</sup>

Between 2017 and 2021, public debt stock in PNG increased from around K25 billion to K49 billion. This development was mainly due to external loans, while the creditor composition has been gradually shifting away from commercial loans towards official multilateral and bilateral financing. The IMF's general allocation of Special Drawing Rights (SDRs) (SDR1 = \$1.3229242) became effective in August 2021, with SDR 252 million (\$357 million, or 95.7 percent of quota) allocated to PNG. The authorities used the total SDR allocation to support the 2021 budget. PNG is an International Development Association (IDA) blend country with an IDA19 allocation of SDR 178.4 million. IDA's Performance-Based Allocation (PBA) for PNG benefitted from resource frontloading amid a shortening of IDA19 to two years and

an intra-regional reallocation for SDR 0.6 million, approved in November 2021. The IDA decision to graduate a country with International Bank for Reconstruction and Development (IBRD)-only status is based on assessing the country's macroeconomic prospects, risk of debt distress, vulnerability to shocks, institutional constraints, poverty levels, and social indicators.

The IDA Sustainable Development Finance Policy (SDFP) supports PNG in addressing critical debt vulnerabilities. This support may allow future access to total IBRD borrowing. As part of the SDFP, PNG has satisfactorily implemented the Performance and Policy Actions for fiscal year 2021. These were aimed at improving debt management and debt transparency. PNG has two further SDFP Actions for the fiscal year 2022, including a \$1 billion non-concessional prudential practice guide borrowing limit for new non-concessional long-term contractual obligations.<sup>49</sup>

Under the Debt Sustainability Analysis baseline scenario, the debt-service to revenue indicator is projected to breach its threshold. This relatively large breach in 2028 arises from the bullet payment for the \$500 million Eurobond issued in 2018. After 2028, the indicator remains close to the threshold, with further marginal breaches until 2032.<sup>50</sup>

Loans accumulated since the fourth quarter of 2021 include AU\$650 million<sup>51</sup> (K1.736 billion) from the Government of Australia and US\$325 million (K1.141 billion) from the ADB. Australia's support contributes to refinancing an existing AU\$410 million (K1.95 billion) loan to assist PNG in delivering core government services, with a combined commitment of AU\$600 million (K1.602 billion) during the pandemic period of 2020-21.<sup>52</sup> China also signed a \$1.6 billion (K5.616 billion) loan to support the creation of a 'Special Economic Zone' in Kikori, located in the Gulf of PNG.

In March 2023, the IMF Executive Board approved PNG's request for SDR684.3 million (equivalent to \$918 million) under the Extended Credit Facility (ECF) and the Extended Fund Facility (EFF). The 38-month arrangement will support PNG's reform agenda, which seeks to help protect the vulnerable and foster inclusive growth. The reforms will strengthen debt sustainability, alleviate FX shortages, enhance governance, and operationalize the anti-corruption framework.<sup>53</sup> The IMF Executive Board completed the First Reviews under the 38-month ECF/EFF arrangements for PNG, providing the country with immediate access to \$88 million. The review found that all end-June 2023 performance criteria were met, namely strengthening the government human resources business processes and appointments to ICAC. In addition, two of the August 2023 criteria were met: the modification of open market operations and the development of an action plan for exchange rate reform and monetary policy reform. The program will continue to support PNG's reform agenda, including several other newly proposed criteria, such as cleansing the government payroll by the end of August 2024.<sup>54</sup>

According to World Development Indicators, net Official Development Assistance (ODA) to PNG is declining. In 2020, net ODA was 4.57 percent of GNI, compared with 2.22 percent of GNI in 2022. The declining percentage is also due to increasing PNG GNI. The net ODA received was \$661.2 million in 2022, compared with \$1.1 billion in 2020. The IMF estimated PNG's government debt-to-GDP to be 49.9 percent or K52 billion at the end of 2023.

<sup>48</sup> International Monetary Fund (2022) Papua New Guinea Article IV consultations, IMF country Report No. 22/305

<sup>49</sup> International Monetary Fund (2022) Papua New Guinea Article IV consultations, IMF country Report No. 22/305

<sup>50</sup> Ibid

<sup>51</sup> More information about this loan can be found at <https://treasury.gov.au/publication/p2022-247810>

<sup>52</sup> World Report 2022: Papua New Guinea | Human Rights Watch <https://www.hrw.org/world-report/2022/country-chapters/papua-new-guinea>

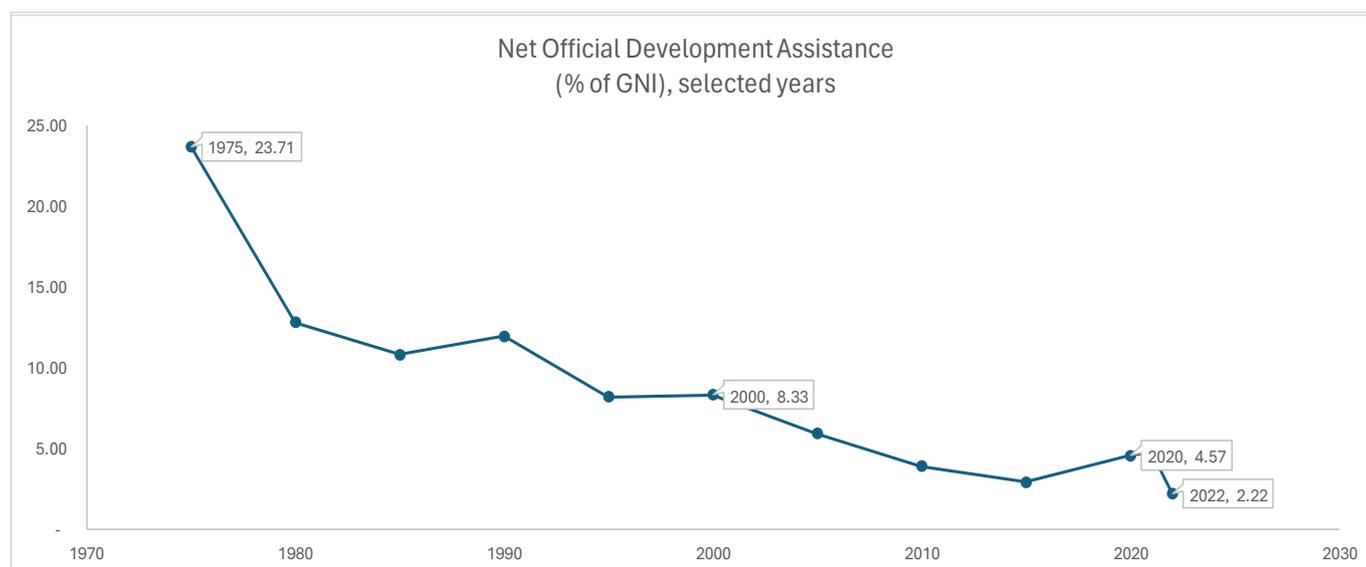
<sup>53</sup> <https://www.imf.org/en/News/Articles/2023/03/22/pr2389-papua-new-guinea-imf-executive-board-approves-us918m-under-the-ecf-eff>

<sup>54</sup> International Monetary Fund (2023) Papua New Guinea, First Review of the Extended Fund Facility, IMF Country Report 23/385

The PNG government has significant contingent liabilities of K8.3bn (\$2.2bn), equivalent to 7 percent of GDP, linked to SOEs. These SOEs are unprofitable, generate low returns, and heavily rely on the government for cash infusions and asset donations. The government's contingent liabilities are not included in the public debt stock. Including them would push the public debt/GDP ratio to above 60 percent, breaching the debt ceiling set out in the Fiscal

Responsibility Act. Most contingent liabilities are from external creditors, which exposes the government to exchange rate risk. The rise in interest rates and greater exchange-rate volatility will reduce SOEs' ability to repay foreign debt, forcing the government to assist. This situation will raise PNG's debt servicing costs, although an outright sovereign default is unlikely.<sup>55</sup>

**FIGURE 14: PNG NET ODA RECEIVED 1990-2020 SELECTED YEARS (PERCENT OF GNI)**



Source: World Bank World Development Indicators

The authority to issue guarantees on behalf of the state is set out in the Public Finances (Management) Act, which requires the Minister to table the documents associated with the guarantee at the next sitting of Parliament. Ministerial approval also guarantees medium- or long-term loans (i.e., longer than six months of maturity) contracted by provincial governments or LLGs. While the Act gives the minister the authority to charge a fee for a guarantee, no such fee is required nor linked to the level of risk associated with the guarantee.

#### 4.3.3 Domestic Private Sector Financing

Founded in 1999, the PNG Stock Exchange has only 13 listed companies with a total market capitalization of \$20.3 billion as of October 2021. However, excluding five dual listings, such as Newcrest Mining and Santos, the market cap was \$1.9 billion as of October 2021, comprising of 8 listed local stocks, of which \$1.6 billion is Bank of South Pacific, one of the leading banks in PNG and the Pacific.<sup>56</sup> The PNG stock exchange rules come under license from the Australian Stock Exchange, on which some PNG Stock Exchange-listed companies are also present. The companies listed include aviation, banking, finance, manufacturing, mining, oil, and gas. Portfolio investments are unregulated and limited to the availability of stocks. Credit is allocated on market terms, and foreign investors can get credit on the local market,

provided that foreign investors have a good credit history. However, credit instruments limit leasing and bank finance.

Civil society organizations (CSOs) and churches are crucial to PNG's development because of their predominance in operating schools, hospitals, and community services. Also, traditional social structures such as the wantok system support families: churches and traditional social structures influence CSOs in PNG. Clans, the earliest form of civil society in PNG, organize village life around a hierarchy and a set of rules. The clans are egalitarian, with no chief or single leader who can speak for all. Leadership and power come under those who can obtain and share wealth.

The Australian government is implementing the Building Community Engagement in PNG Program (BCEP, AU\$87.5m from 2022–2026) to promote constructive engagement between civil society and the PNG government. BCEP's goal is to strengthen citizen-government engagement for improved service delivery and provision of public goods. It has a particular emphasis on promoting gender equality and inclusive social norms. BCEP comprises five components: Coalitions for Change, The Media Development Initiative, The Church Partnerships Program, Social Accountability, and PNG Government Partnerships.<sup>57</sup>

<sup>55</sup> Economic Intelligence Unit, January 2024 PNG Country Report

<sup>56</sup> <https://www.scpng.gov.pg/self-regulatory-organizations>.

<sup>57</sup> <https://www.dfat.gov.au/publications/development/building-community-engagement-papua-new-guinea>.

### 4.3.4 External Private Sector Financing

GoPNG fosters an environment that enables businesses to grow and attract FDI. PNG has no specific policy or law promoting discrimination against foreign investors. However, the Foreign Investment Regulatory Authority Bill 2018 prompted severe business concerns that disadvantaged foreign investments. In response to these concerns, GoPNG suspended the bill for further review and broader consultation.

An act of parliament established the Investment Promotion Authority in 1992 to promote and facilitate investment in PNG and regulate business. GoPNG screens FDI through the Investment Promotion Authority. When reviewing an FDI proposal, the Investment Promotion Authority may consider several factors, including the potential for the positive development of human and natural resources and the investor's record in PNG and elsewhere.

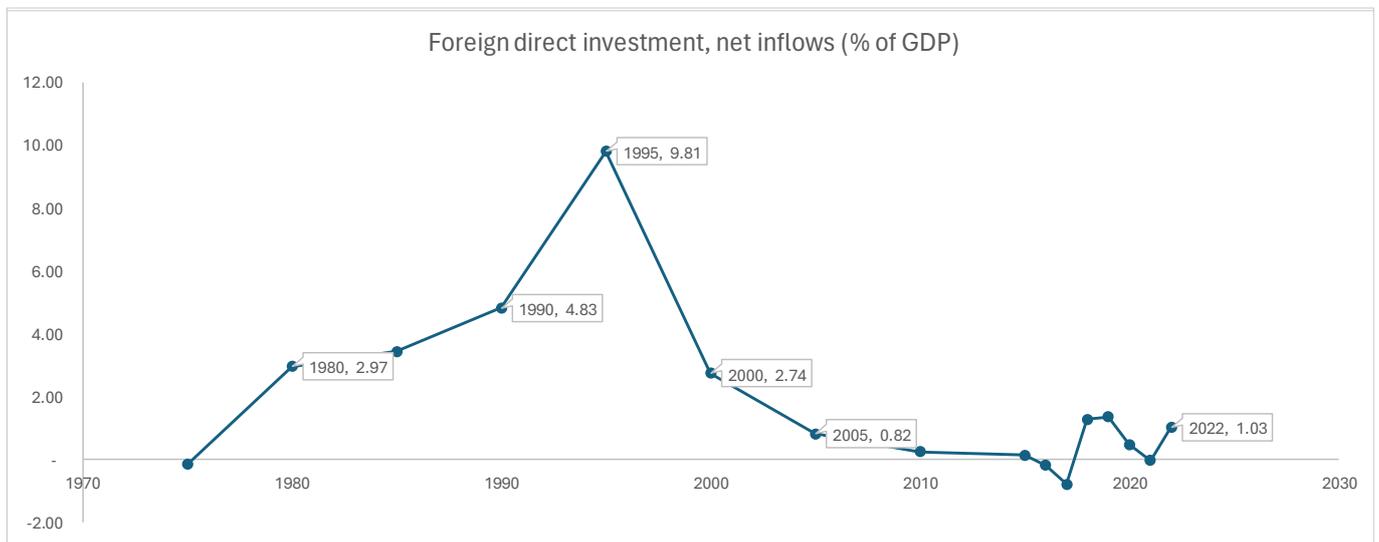
In 2023, the PNG parliament amended the Associations Incorporation Bill and Investment Promotion Bill to improve the local business regulatory environment by promoting SMEs and FDI. The changes in the law included streamlining the foreign certification system and supporting SMEs by automatically rejecting applications for reserved activities that name local enterprises. The bills also stipulate the review of the reserve activities list every three years, introduce more reporting obligations on foreign investors, and provide powers to cancel certification where essential business laws are breached. In addition, the Registrar of Foreign Investment requires minimum investments from non-citizen investors seeking residency visas.

The new laws will improve government-business connections with non-profits and anti-money laundering compliance.<sup>58</sup>

Australia was the top investing country in 2021, followed by Malaysia, the USA, Hong Kong, and China. In 2022, investment from China significantly increased. Much of the investment from China has been in Chinese-owned energy and infrastructure, adding power generation to support Chinese-owned mining entities. By sector investments, the energy sector had the highest investments and investment proposals, followed by the retail and wholesale sectors, then manufacturing, mining and petroleum, and other sectors. Mining companies continue to be an attractive investment destination. Growth in the mining industry is estimated to be 5.4 percent, underpinned by the reopening of the Porgera mine and improvements in OK Tedi and Wafi-Golpu production in 2023. Papua LNG enters the next phase of LNG commercialisation, bringing Total Energies, ExxonMobil, and Santos together for years.

Telecommunication companies anticipate growth and are considered good foreign investment opportunities in PNG and the Pacific. Telstra Australia acquired telecommunication giant Digicel Pacific, which has the largest market share in PNG. Vodafone PNG – Amalgamated Telecom Holdings Ltd started operations as the third mobile operator in PNG with an anticipated investment exceeding \$399 million.<sup>59</sup> According to World Development Indicators, PNG received \$326.7 million in FDI in 2022, equivalent to 1.03 percent of GDP, the highest level since 2019, when the country received \$335.6 million in FDI.

**FIGURE 15: PNG FOREIGN DIRECT INVESTMENT NET INFLOWS, 2000-2019, SELECTED YEARS (PERCENT)**

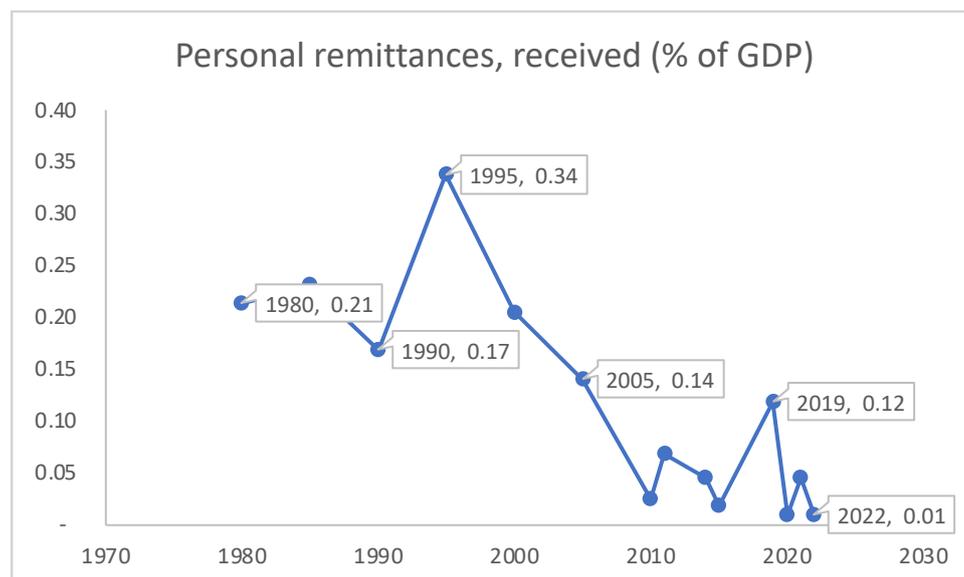


Source: World Bank World Development Indicators

<sup>58</sup> Economic Intelligence Unit, Papua New Guinea Country Report (June 2023)  
<sup>59</sup> <https://www.state.gov/reports/2023-investment-climate-statements/papua-new-guinea/>

The leading countries for sending and receiving remittances to and from PNG were Australia, China, India, Indonesia, Japan, New Zealand, the Philippines, Solomon Islands, South Korea, Sri Lanka, the United Kingdom, and the United States. Personal remittance outflows outpace inflows. Remittances outflows from PNG were \$153.1 million for 2021, compared with outflow numbers of \$33.3 million in 2020 and \$140.8 million in 2019. On the other hand, remittance inflows into PNG amounted to \$3 million in 2022 compared with \$11.9 million in 2021. Except for 2011 to 2014 and 2021, remittance inflows to PNG have been less than \$10 million per year. The inflow of migrant remittances averaged 0.05 percent of GDP from 2010 to 2022. In 2022, remittance inflows were 0.01 percent of GDP.

**FIGURE 16: PNG MIGRANT REMITTANCE INFLOWS, 1980-2022, SELECTED YEARS (PERCENT)**



Source: World Bank World Development Indicators

#### 4.4 Environment and climate change analysis

PNG has tremendous natural wealth, an exceptional diversity of wildlife, and a growing population. Most live subsistence lifestyles and depend directly on the environment for daily needs. However, PNG's natural resources are depleting rapidly, impacting biodiversity and people's well-being. It is one of the most disaster-prone countries in the world due to geophysical conditions. Prevalent hazards include earthquakes, cyclones, storms, volcanic eruptions, riverine and coastal flooding, coastal erosion, epidemics, and droughts.<sup>60</sup>

PNG's geography is defined by a high central cordillera (over 1500m), with several subsidiary coastal ranges comprising montane landscapes. Many of PNG's islands are active or recently active volcanoes. The high equatorial ranges and warm tropical seas generate high rainfall, feeding thousands of streams and rivers that have broken the landscape into many isolated and hard-to-reach plains, plateaux, and valleys. PNG's coastline is over 17,000 km long. The implications of its remote geography include:

- evolution of very diverse flora and fauna, including many endemic species (found nowhere else in the world)
- development of diverse cultures, with over 850 recognized languages
- poor accessibility, lack of infrastructure and services, and high transport costs in many areas

- some extremely wet areas with high disease potential and low productivity
- very high vulnerability to volcanic eruptions, earthquakes, and other natural disasters.

##### 4.4.1 Legislation, policies, agreements, and tools

Both PNG's Constitution and its strategic Vision 2050 include significant pillars, promoting the conservation of the environment and culture for the benefit of future generations. Vision 2050 provides the overarching guide to the Development Strategy Plan (DSP) 2010-2030, focusing more on economic and social development.<sup>61</sup> The five-year MTDPs provide the finer details of the government's sectoral plan to increase or improve the economic and social services and development. In 2023, GoPNG passed the MTDP IV with 8 goals and 12 SPAs, where SPA 10 focuses on Climate Change and Environment.

PNG is a signatory to other international agreements, including the Convention on Biological Diversity, the UN Framework Convention on Climate Change, and the Paris Agreement.

Some components of PNG's environmental legislation and policy are substantial, including the National Oceans Policy, Policy on Protected Areas, National Strategy for Responsible Sustainable Development (STaRS) 2015, the Climate-compatible Development Policy and the Timber Legality Standard (TLS) 2023. However, implementing these has been challenging

<sup>60</sup> United Nations Office of Disaster Risk Reduction [UNDRR], 2019a

<sup>61</sup> Environmental Performance Index 2020, Yale Center for Environmental Law and Policy, Yale University

and lacking, and much legislation is old, requiring review and updating (for example, biodiversity and wildlife conservation, forestry management, sustainable land use, chemical and waste disposal, and mining).

PNG's environmental governance remains weak. It scores poorly on the International Environmental Performance Index, ranking 146 out of 180 countries.<sup>62</sup> While legislation appears to protect the rights of landowners and the community, the laws and agreements are not consistently enforced in practice. This frequently leads to dissatisfaction and sometimes conflict. GoPNG and the United Nations recognize weak law enforcement and systemic corruption problems as significant barriers to development in the country: the government has committed to action on these issues under the auspices of the UN Convention Against Corruption and the PNG Anti-Corruption Project funded by the EU and implemented by the UN Office on Drugs and Crime and UNDP PNG.

The impact of extractive industries without proper management has reportedly led to consequences such as, but not limited to:

- environmental damage, including pollution and loss of species and habitats
- health issues for the surrounding communities
- issues of physical safety, freedom of movement, and access to services
- lack of access to clean water
- unequal participation and socio-economic disparity
- economic disparity and community conflicts
- flooding and destruction of agricultural land and sacred sites
- landslides
- food insecurity.

Broadly, a lack of collaboration and coordination between government agencies, high-quality and disaggregated data availability, and data sharing among agencies hinder progress toward sound environmental decision-making across PNG. While data often exists at the project level, no comprehensive database or system exists to store, manage, share, and use this data over the long term.

The UN and development partners have developed several tools and mechanisms to assist community-level engagement in environmental management and conservation. These include the:

- Free, open-source Lukim Gather mobile data collection application to assist protected area communities in mapping and monitoring their environment ([www.lukimgather.org](http://www.lukimgather.org))
- PNG Biodiversity library of resources for establishing and monitoring protected areas ([www.pngbiodiversity.org](http://www.pngbiodiversity.org))
- National Forest Monitoring System for REDD+ and forest monitoring projects (<http://png-nfms.org/portal/>)
- Biodiversity and Climate Fund will assist communities, NGOs, and community-based organizations in funding projects related to preserving environmental resources across PNG ([www.pngbcf.org](http://www.pngbcf.org)).

#### 4.4.2 Biodiversity conservation

PNG has outstanding biodiversity values. It is located on the most floristically diverse island in the world, with a high degree of endemism and many undescribed species.<sup>63</sup> At different altitudinal ranges, the endemism and diversity of different species either increase or decrease<sup>64</sup>. The diversity of vertebrate animals is among the highest on the planet, with at least 1,786 species of amphibians, reptiles, birds, and mammals, between five and nine percent of the world's total. The number of species will likely increase as research finds new and undescribed plants and animals. PNG is among the world's top ten countries where conserving its natural environment can contribute to saving biodiversity.<sup>65</sup> Despite this, PNG's biodiversity loss continues to accelerate, and there is a risk of losing species before they are identified and catalogued.

There has been little recent work at the national level on policy or programs for wildlife and biodiversity conservation. According to the International Union for Conservation of Nature (IUCN) (2022), two-thirds of animal species and a fifth of plant species in PNG are listed as decreasing, with the population trend of most of the rest unknown. One in five of PNG's mammals is threatened.

PNG is a signatory to the Convention on International Trade in Endangered Species (CITES) and only monitors the trade of Category II species and restricts the trade of Category III species, particularly endangered or threatened species. Laws such as the Fauna (Protection Control) Act and the National Parks Act have been repealed. Once enacted, the new Protected Areas Bill will enable species protection in tandem with the Conservation Area Act 1978, CEPA Act 2014, Environment Act 2000, Forestry Act 1991, and Fisheries Act 1998.

Threats to wildlife and biodiversity include wildlife trade, unsustainable hunting or fishing and resource use, invasive species, use of modern technology to hunt or fish, clearing and habitat loss (for example, rough extractive industries including agriculture, logging, mining, oil, and gas extraction), invasive species, loss of biocultural knowledge, climate change, and pollution and sedimentation. Sustainable wildlife use is a pillar of survival for many rural people in PNG as a source of food, medicine, firewood, and building materials. Wildlife is also an integral part of cultural and traditional life. Sustainability has become more challenging to ensure due to increasing human populations and development activities placing pressure on habitats for wildlife populations. The loss and destruction of biodiversity often result in few long-term benefits for local landholders or the PNG community. The people who suffer most from biodiversity decline are the poorest, reliant on hunting and fishing for survival, and women and children.

PNG has outstanding variety in its common food crops and is the centre of diversity for crops, including bananas and sweet potatoes. PNG is considering ratifying the Nagoya Protocol on Access and Benefit Sharing. In the past, PNG's genetic resources have been exploited without any benefit for landowners or the country or the protection of landowners'

<sup>62</sup> Environmental Performance Index 2020, Yale Center for Environmental Law and Policy, Yale University

<sup>63</sup> Cámara-Leret, R., et al, 'New Guinea has the world's richest island flora', Nature.com, 2020. <https://doi.org/10.1038/s41586-020-2549-y>

<sup>64</sup> CEPA & SPREP (2021). Papua New Guinea State of the Environment Report 2020. Apia, Samoa.

<sup>65</sup> Dinerstein, E. et al., 'A "Global Safety Net" to reverse biodiversity loss and stabilize Earth's climate'. Sci. Adv. 6, eabb2824, 2020. <https://doi.org/10.1126/sciadv.abb2824>

intellectual property. GoPNG is concerned about the community and national rights to genetic material.

The National Agriculture Research Institute (NARI) is researching to preserve the genetic banks of specific food or cash crops in situ at its research stations. Most crops are not resistant to pests and diseases, and climate change impacts significantly threaten people's livelihoods, food security, and the country's national economy.

The UN and development partners support several programs to improve biodiversity outcomes by strengthening management effectiveness, establishing a community collaboration and partnerships network, advocating initiatives to create a forum for conservation stakeholders, piloting demonstration initiatives, and promoting sustainable financing. Regionally, the Secretariat of the Pacific Regional Environment Programme (SPREP) also provides a valuable mechanism for South-South cooperation. The Secretariat for South Pacific Country (SPC) also provides a platform for cooperation in the Pacific.

#### 4.4.3 Protected areas

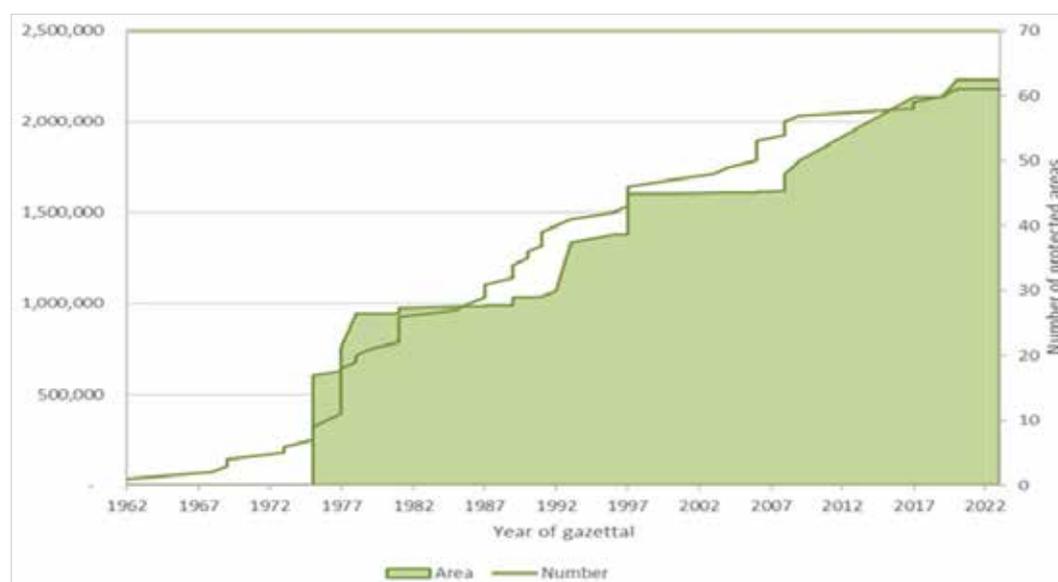
The Global Biodiversity Framework (GBF) is a non-legally binding agreement for governments to sign and commit to demonstrating progress toward meeting biodiversity and conservation targets and updating the country's National Biodiversity Strategy and Action Plans. The Kunming-Montreal GBF was signed by 196 countries on 19 December 2022 at the

COP 15 meeting with the theme "to take urgent action to halt and reverse biodiversity loss" by 2030 and to protect 30 percent of land and sea area by 2030. At the 2021 Protected Areas Forum in Port Moresby, then Minister for Environment Conservation and Climate Change, Honourable Wera Mori, pledged on behalf of GoPNG to conserve 30 percent of marine and terrestrial areas by 2030.<sup>66</sup>

When finalized and enacted, protected areas in PNG are managed under several legislations aligned with the Protected Areas Bill. The Policy on Protected Areas was approved in 2015.

In 2022, there were 61 formally gazetted protected areas (PAs) in PNG, totalling just over 2.2 million hectares (ha) (4.8 percent of the land area), well below the agreed 17 percent for terrestrial protected areas as stated in the CBD Aichi targets and PNG's Policy on Protected Areas. Since 2010, four protected areas have been gazetted, and one has been substantially expanded. The total marine protected areas formally registered is less than one percent. Not all locally managed marine areas are recorded in CEPA's central PA database. Representation of ecosystems and species falls well short of the agreed targets. Priority areas for future reservations have been identified,<sup>67</sup> but the time required to create new protected areas is significant. Local communities establish most PAs; thus, landowners' free, prior, and informed consent is essential for any proposals to progress.

**FIGURE 17: PAPUA NEW GUINEA'S PROTECTED AREA NETWORK 1962-2022**



Source: Drawn from data from the protected area database provided by CEPA, Government of PNG

The management effectiveness of most protected areas is very low, with more than 90 percent having no or minimal funding, capacity, resources, or staffing,<sup>68</sup> resulting in limited active management and monitoring of biodiversity outcomes. The exceptions are protected areas with consistent external support, usually coupling biodiversity conservation with community development. Recent projects supported by the Global Environment Facility (GEF) and UNDP have assisted in increasing capacity,

especially at the national level, and developing preliminary management plans for most protected areas. However, staffing and funding of protected areas across the board are inadequate, especially considering the vital importance of biodiversity in PNG. As most protected areas will be managed at the provincial level, partnerships with provincial administrations and capacity building at LLG and community levels are critical.

<sup>66</sup> PNG Protected Area Forum (2021). Report from the Protected Area Forum held at the Hilton Hotel, Port Moresby, June 2-3, 2021. A report by CEPA and UNDP.

<sup>67</sup> Adams, V.M., Land-sea conservation assessment for Papua New Guinea, University of Queensland, Australia, 2017.

<sup>68</sup> Leverington, F. et al, 'Papua New Guinea Management Effectiveness Evaluation of Protected Areas'. SPREP/CEPA/ UNDP, Samoa, 2017.

Protected and conserved areas offer opportunities for PNG communities, as they can be a focus for funding that integrates conservation objectives with social and economic progress and the continuance of diverse cultures. However, a long-term, sustained effort must continue at many national, provincial, and local levels across the country, including in remote locations. The current GEF-funded project on sustainable financing of protected areas aims to reduce the funding gap for protected areas and improve their management effectiveness and the livelihoods of customary landowners.

With the support of UNDP, a national Biodiversity and Climate Fund<sup>69</sup> was established in 2022 to operate as a legally independent institution by 2025. This Fund aims to support the financial sustainability of protected area management in PNG and coordinate fundraising efforts for protected areas. It is managed by an independent Board comprising public, private, and development actors in PNG. In 2022, the Fund received nine grant proposals from various local conservation organizations, but only seven were approved for funding up to \$100,000.00. Toward the end of 2023, the Board of Directors endorsed a new call for funding proposals.

#### 4.4.4 Forests

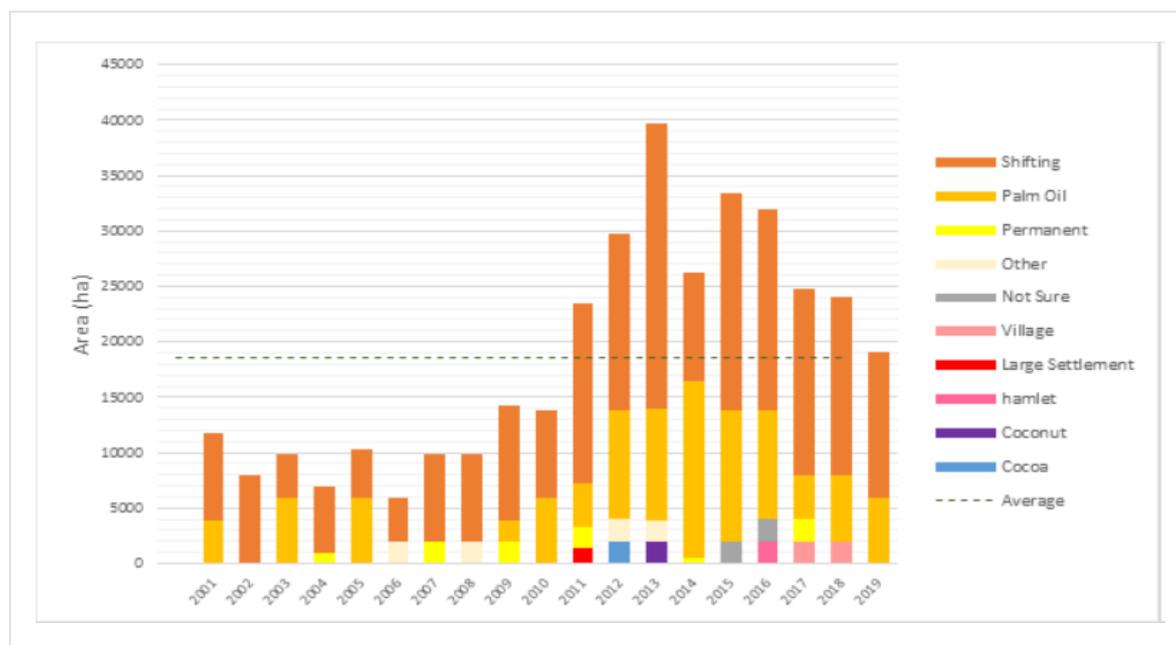
PNG's forests are globally significant regarding ecosystem structure and function, carbon storage, carbon dioxide sequestration, and biodiversity. Most forest land is owned by customary landowners who rely on forest resources for subsistence and income. Approximately 75 percent of the forest is still intact or not disturbed by anthropogenic activities. Humans impact the forest by up to 25 percent, constituting logging (11.5 percent), gardening (8.7 percent), fire (3.1 percent), other (1.4 percent), portable sawmills (0.2 percent), infrastructure (0.02 percent) and mining (0.01

percent).<sup>70</sup> Logging activities mainly occur in low-altitude (less than 500m) forests on plains and fans and low-altitude forests on uplands.<sup>71</sup>

From the total land area of 46.15 million hectares (ha), 35.95 million ha (77.9 percent) is forestland covering 12 forest types. The remaining 22 percent, or 10.2 million ha, is shared by cropland with 5.2 million ha (11.21 percent), grassland with 2.4 million ha (5.27 percent), settlement with 0.4 million ha (0.88 percent), a wetland with 2.1 million ha (4.62 percent) and other land uses with 0.06 million ha (0.11 percent).<sup>72</sup>

Changes to forest cover distinguish between forest degradation (for example, as a result of commercial logging) and forest deforestation, where a forest is replaced by other land cover types (e.g., cropping, urban expansion).<sup>73</sup> Between 2000 and 2019, just over 352,804 ha (0.98 percent) of the forest was cleared and converted to other uses.<sup>74</sup> Between 2000 and 2010, almost 100,662 ha (0.28 percent) was deforested. The average annual area of deforestation between 2011 and 2015 (30,700 ha) was significantly more than between 2001 and 2005. It increased by 154,361ha (0.42 percent) between 2011 and 2015.<sup>75</sup> The annual deforestation rate slowed to under 20,000 ha by 2019 due to government policies and the cancellation of some Special Agricultural Business Leases. From 2016 to 2019, deforestation decreased to 99,780ha (0.28 percent). Forest and land use contributed a net GHG emission of 21,654Gg CO<sub>2</sub>-eq in 2020 compared to 1,716 CO<sub>2</sub>-eq in 2015.<sup>76</sup> Almost all deforestation (99 percent) was due to land-use conversion from forest to cropland. Subsistence agriculture is reported to be the most significant driver of deforestation (responsible for about two-thirds), followed by oil palm plantation development (30 percent).<sup>77</sup>

**FIGURE 18: ESTIMATED ANNUAL RATES OF DEFORESTATION IN PNG (2001–2019)**



Source: Global Green Growth Institute and CCDA, 2021 from draft LULUCF Assessment 2016–2019

<sup>69</sup> <https://www.undp.org/papua-new-guinea/projects/sustainable-financing-papua-new-guineas-protected-area-network>

<sup>70</sup> PNGFA (2022a). Forest and land use change in Papua New Guinea 2000–2019. PNGFA, Port Moresby

<sup>71</sup> *ibid.*

<sup>72</sup> *ibid.*

<sup>73</sup> *ibid.*

<sup>74</sup> *ibid.*

<sup>75</sup> *ibid.*

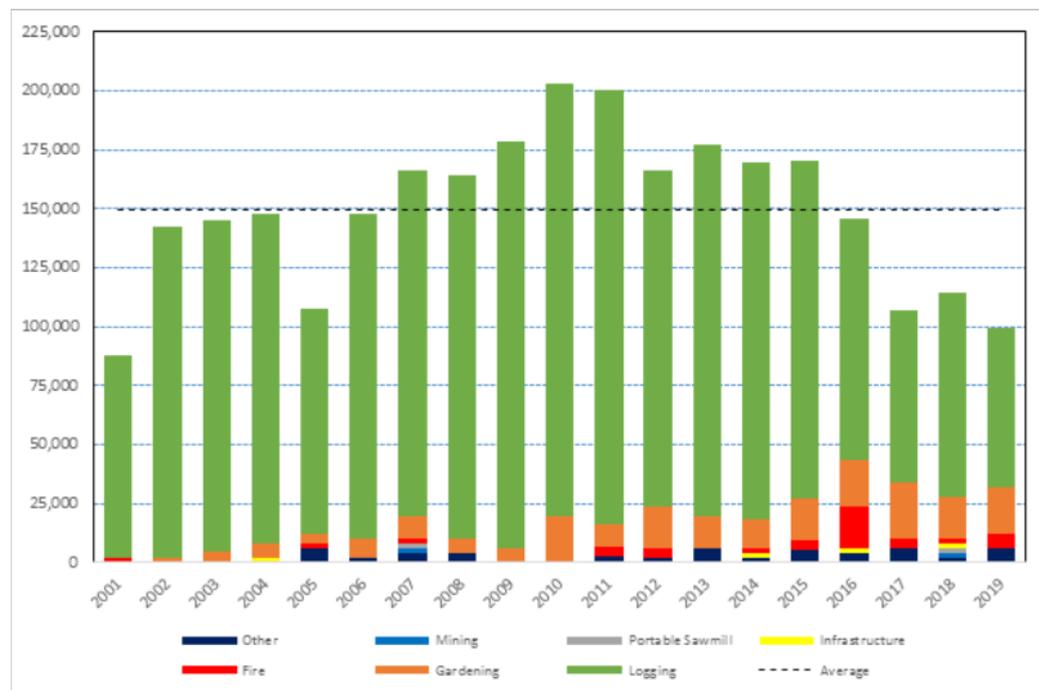
<sup>76</sup> *ibid.*

<sup>77</sup> *ibid.*

Nearly three million ha of forest was mapped as becoming “degraded” between 2000 and 2019. This represents about 10 percent of PNG’s forests, primarily due to logging. The annual area of forest degradation more than doubled from 2001 (87,600 ha) to its peak in 2011 (200,050 ha). Since its peak, the rate has slowed to 100,000ha in 2019 (Figure 19). JICA continues

supporting PNGFA by developing a forest base map for the country and the PNG Information Management System, reviving the Multipurpose National Forest Inventory previously supported by FAO and the European Union.<sup>78</sup> This will enable PNGFA to plan future forest development activities in the country and stocktake its forest resources, biodiversity, and carbon stock.

**FIGURE 19: ANNUAL RATE OF FOREST DEGRADATION 2001-2019 (AREA IN HA)**



Source: Global Green Growth Institute and CCDA, 2021

The National Forest Policy and the Forestry Act 1991 (as amended), with other enabling legislation such as the Environment Act 2000, are vital in providing effective planning and forest resource management.

Key areas of concern related to forestry include the impact of timber harvesting activities, including sustainable and illegal logging cycles, third-party rights, transport, and trade, and poor governance, including lack of suitable engagement with customary landowners.

In the National Forest Development Program 2023-2027, the PNGFA documented ten core programs to improve its performance and that of the forestry sector, as follows:

1. Forest planning and resource management
2. Forest law enforcement and governance
3. Forest research and development
4. Forest plantation development and natural regeneration
5. Community forestry and extension services
6. Downstream processing
7. Corporate affairs and governance
8. Revenue generation
9. Climate change and development
10. Other cross-cutting issues related to its human resource policy.<sup>79</sup>

The Forest Act 1991 (as amended) and associated Regulations were reviewed and amended, including the National Forest Plan. Forest certification through the PNG TLS, Timber Legality Verification Systems, and the Decision Support System were also developed. The TLS was approved by the National Institute of Standard and Industrial Technology and endorsed by the NEC in 2023. Two provinces out of seven selected for testing and assessment, Morobe and Madang, use the TLS to promote transparency, accountability, and good governance.

PNG is the world’s largest exporter of tropical round logs, exporting 84 percent of these logs to China. Log export tax contributes about K400 million annually to the government coffers.<sup>80</sup> GoPNG has committed to phasing out log export by 2025, with two supporting policies: an end to new timber permits and permit renewals and new log export licenses for foreign-owned logging companies. This implies that:

1. logging companies are obliged to partner with the government in downstream processing
2. no new concession would be granted to companies without a processing plan
3. log export permits would only be granted to landowner companies
4. half of the total logs harvested would have to be processed onshore
5. No new concessions will be granted until the PNGFA comprehensively reviews all existing concessions.<sup>81</sup>

<sup>78</sup> PNGFA (2022b). National Forest Development Program 2023-2027. PNGFA, Port Moresby

<sup>79</sup> PNGFA (2022b). National Forest Development Program 2023-2027. PNGFA, Port Moresby

<sup>80</sup> The National (2022). Forests pumps K400mil in tax. The National, Port Moresby. [www.thenational.com.pg](http://www.thenational.com.pg). Retrieved on Thursday 12 October 2023.

<sup>81</sup> Filer C (2022a). Will PNG really stop log export in 2025? Part One. DevPolicy Blog. <http://Devpolicy.org>

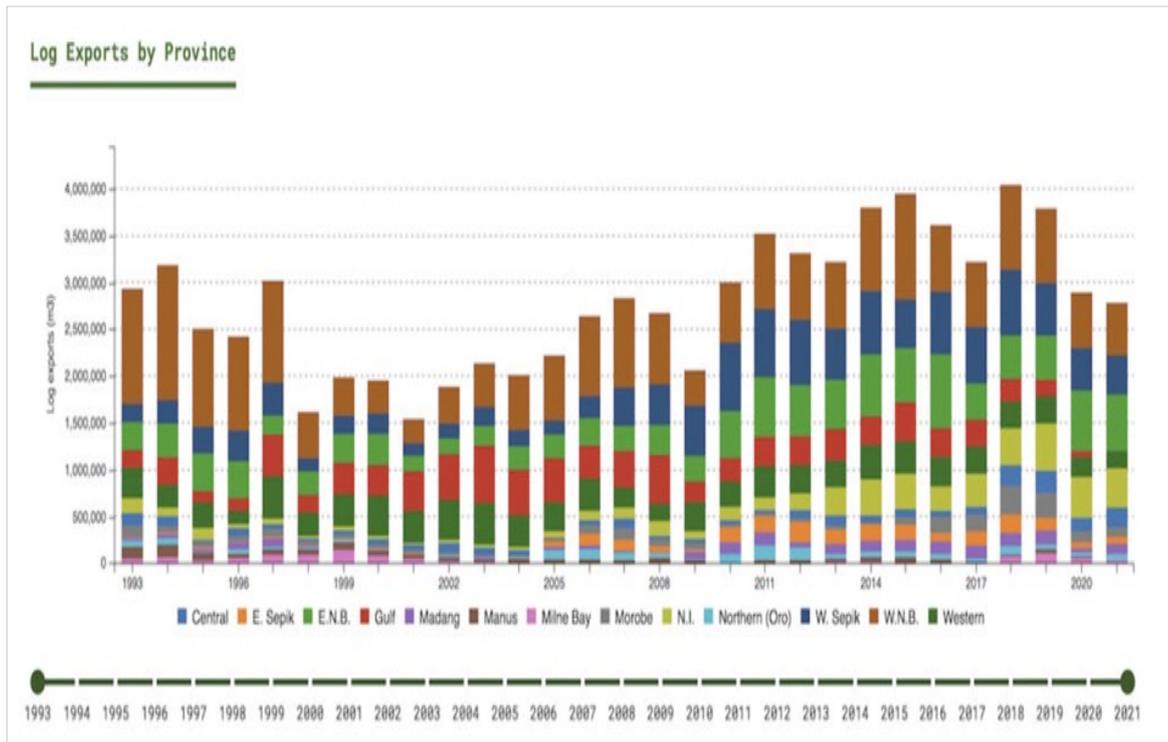
Banning of round logs was previously mooted back in 1990 and was captured in Vision 2050 in 2009, but no bold actions were taken by successive governments over 30 years. Hence, round log exports are still high (Figures 20 & 21). Many agreements and licenses are not due to expire for many years. Hence, this phasing out will require concerted action.

Under the Marape-Rosso Government, a 70 percent round log export tax was imposed on logging companies in late 2022 (two years previously, it was 50 percent). Hence, many logging companies are shutting down their operations before the total phase-out is reached in 2030.<sup>82</sup> An estimated

K30m in revenue was earmarked to be generated to support the UN Biodiversity and Climate Fund and program into terrestrial biodiversity and conservation projects.

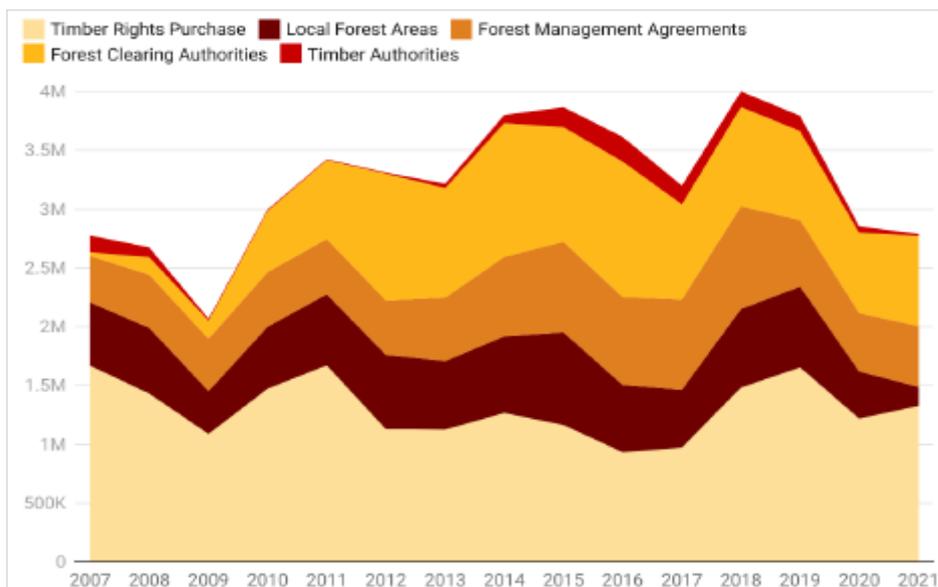
Since the COVID-19 pandemic, log exports have dropped, but within six months in 2022, the total volume slightly increased compared to 2020 but less than 2019 (Figure 20). The increase in log harvesting was due to the issuance of the Forest Clearing Authority and the logging of existing concessions such as the Timber Rights Purchase and Local Forest Area.<sup>83</sup>

**FIGURE 20: EXPORTS OF ROUND LOGS FROM PNG, 1993 TO 2021**



Source: PNGi 2022

**FIGURE 21: PAPUA NEW GUINEA'S LOG EXPORTS (IN CUBIC METRES) FROM FIVE MAIN TYPES OF CONCESSION, 2007-2021**



Source: Filer (2022a)<sup>84</sup>

<sup>82</sup> The National (2022). Tax hike for log exports criticized. The National, Port Moresby. Extracted Tuesday 10th October 2023.

<sup>83</sup> Filer C (2022b). Will PNG really stop log export in 2025? Part Two. DevPolicy Blog. <http://Devpolicy.org>

<sup>84</sup> Filer C (2022b). Will PNG stop log export in 2025? Part Two. DevPolicy Blog. <http://Devpolicy.org>

There have been allegations of inadequate monitoring and poor enforcement within the forestry sector for several years from multiple sources.<sup>85</sup> These mainly applied to logging within Special Agricultural Business Leases, and allegations were confirmed by a government inquiry,<sup>86</sup> which led to the cancellation of some of the licenses. Some TRP and LFA concessions are still logged and deemed illegal under the Forestry Act 1991.<sup>87</sup> As well as environmental impacts, social impacts can include greater violence and hardship for women and issues of use of force by uniformed forces.<sup>88</sup>

The Government of Japan is assisting PNGFA in improving the monitoring of logging activities and promoting low-carbon emission logging.<sup>89</sup> GoPNG has committed to ending forest loss by 2030, and under Vision 2050, PNG envisages becoming carbon neutral by 2050.

#### 4.4.5 Marine conservation

PNG's marine environment is vast and diverse, globally significant in its ecosystem structure, function, and biodiversity. It is also locally significant for thousands of PNG residents relying on its resources for subsistence and income. Most of PNG's threatened and highly biodiverse marine and coastal ecosystems and species are poorly protected, leaving them potentially vulnerable to conflicting resource use and over-exploitation.

In about 4,000 rural coastal communities throughout 14 maritime provinces, most people survive on artisanal fishing, hunting, and gardening, with few opportunities to earn money for essential services. Coastal populations are expanding rapidly, placing pressure on coastal and marine resources. Pressures on marine and coastal areas include:

1. changing and intensifying weather patterns and other effects of climate change
2. impacts from land-based activities, including a loss of foraging and breeding grounds for many species of fish
3. invasive marine and coastal species
4. subsistence and artisanal over-fishing, and destructive fishing practices in some areas
5. illegal, unreported, and unregulated fishing
6. use of mechanized and modern fishing equipment or gears resulting in over-fishing
7. Pollution and sedimentation are impacts of forest clearing, agriculture, mining, oil spills, and industrial activities.

PNG has locally managed marine areas under the Community Conservation Area for sustainable management of in-shore areas. They will be more formally recognized in the protected area legislation when passed. Currently, provincial locally managed marine area sites are registered in CEPA and not in the centralized Protected Areas database; hence, they are not recognized nationally within the network of marine protected areas. In addition, there is a commitment to creating more prominent offshore marine sanctuaries under the national government's jurisdiction.

Any plans to effectively manage marine resources must include viable pathways for the health and well-being of coastal communities, including alternative incomes and employment through tourism and improved access to essential human services. In 2013, the PNG Maritime Province Governors Roundtable was established to facilitate issues affecting maritime provinces, which can play a critical part in the Provincial Authority Policy Regional Protected Area Round Table. Fourteen maritime provincial governors have signed the Coral Triangle Initiative MoU to pledge support in promoting the Coral Triangle Initiative PNG Marine Program 2017-2021.

Additional conservation areas are required to meet SDG 14 (Life Below Water) and Aichi Target 11 (17 percent of terrestrial and inland water areas and 10 percent of coastal and marine areas to be effectively and equitably managed), including a need to protect and manage deep water habitats and reefs and to adequately protect commercial fish stock spawning aggregations, marine turtles, seabirds and cetaceans. PNG did not meet the 2020 Aichi Target. Only 4.8 percent of the country's terrestrial area is formally gazetted as protected areas, while less than 1 percent is recognized as marine protected areas. The post-2020 GBF recently proposed that global governments conserve 30 percent of land and water by 2030 – 30 by 30. Work has been initiated since 2017 by the Wildlife Conservation Society in New Ireland Province to protect two marine areas in the Murat and Lavongai LLG Areas under the provincial government jurisdiction. Bootless Bay outside Port Moresby has been recognized as a National Marine Sanctuary but is yet to be formally gazetted.

Expanding marine protected areas in PNG presents an opportunity for strengthened management and pursuit of economic activities that positively contribute to biodiversity conservation. PNG's National Oceans Policy endorsement has highlighted the importance and potential for the blue economy. Early initiatives include the UN joint program to establish a Blue Economy Incubation Facility to provide early-stage financial and technical support to women-led blue businesses, funded through the Global Fund for Coral Reefs and Joint SDG Fund. Hence, provincial governments, national government agencies, and donor partners must work together to achieve critical milestones. The National Fisheries Act 1998 also supports managing and conserving fish resources in internal waters, lagoons, territorial seas, archipelagic waters, and Economic Exclusive Zones.

#### 4.4.6 Managing water, waste, and pollution

Management of waste of all kinds in PNG is limited. The report from the February 2020 SPREP meeting of the Pacific Waste Program (PACWASTE) recorded that PNG had:

- outdated legislation governing waste and chemical management
- limited sustainable financing mechanisms
- limited institutional and human resource capacity at national/municipality levels
- a lack of national policies or strategies on waste management.

<sup>85</sup> Davidson, 2021; Gabriel & Wood, 2015; Laurance et al., 2012; Lawson, 2014; Mousseau, 2017 (see References for full titles)

<sup>86</sup> Numapo, J., 'Commission of Inquiry into Special Agriculture and Business Leases (SABL)', Government of PNG, 2013.

<sup>87</sup> Filer C (2022b). Will PNG stop log export in 2025? Part Two. DevPolicy Blog. <http://Devpolicy.org>

<sup>88</sup> Cannon, J., 'Gender-based violence shakes communities in the wake of forest loss'. Mongabay Environment News, 2020.

<sup>89</sup> PNGFA (2022b) National Forest Development Program 2023-2027. PNGFA, Port Moresby

Wastewater and sewage are primarily released as stormwater drainage, even in larger cities where sewerage treatment plants may exist. Wastewater from commercial premises contains high concentrations of pollutants.

Rapid population growth outpaces investment in WaSH and waste infrastructure and services in urban, peri-urban, and rural areas. Improvements are required to reduce the exposure of vulnerable populations to health risks from poor quality WaSH and impacts on the environment from unmanaged or poorly managed waste disposal. Significant multilateral (World Bank, EU, ADB) and bilateral (Japan, Australia) investments are needed to improve WaSH and waste management in PNG. These investments are guided by multilateral, national, and institutional frameworks and strategies and are accompanied by technical guidance, project monitoring and evaluation, and capacity building. PNG has embraced eco-industrial development, aiming to create a node of industrial sustainability, and is currently developing its first National Waste and Chemical Management Policy.<sup>90</sup>

No legislation specifically deals with solid waste management, but the Public Health Act 1973 (Sanitation and General Regulations) 1973 and the Environment Act 2000 cover some aspects of waste management. CEPA is currently drafting the National Waste Management Policy 2024-2034, which provides the framework for solid waste management and other chemical waste according to the Minamata Convention (2014), Basel Convention on the Trans-boundary Movement of Hazardous Wastes and their Disposal (1995), Stockholm Convention on Persistent Organic Pollutants (2003), Rotterdam Convention (work in progress), Vienna Convention for the Protection of the Ozone Layer (1992), Montreal Protocol on substances that deplete the Ozone Layer (1992), and Convention to Ban the Importation in Forum Island Countries of Hazardous Waste and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region (Waigani Convention), 2001. Most of these Multilateral Environment Agreements are not fully implemented by the government.

#### 4.4.7 Managing mining and gas production

The MTDP IV highlights the mining and petroleum sectors as the significant revenue contributors to the national economy, contributing around 30 percent to the National GDP.<sup>91</sup>

The mining sector contributes about 13 percent to the total GDP and employs over 52,000 people in the operations of the ten mines in the country. The petroleum sector contributes around 17 percent to the GDP and employs around 10 percent of the total employment in the mineral and petroleum sectors. Thus, the MTDP IV details Intervention Programs for Mining and Petroleum, including the following planned investments:

1. State Equity from the Government of PNG
2. National Gold Refinery and Mint Project
3. Limestone Development Program
4. Mining Development Program

5. Landowner Benefit Sharing Agreements
6. Petroleum Downstream Processing
7. Petroleum Development Program.

PNG is highly prospective for gold, copper, silver, nickel, cobalt, and hydrocarbon resources in oil and gas. Foreign investment in large mines and oil and gas extraction is encouraged in PNG, and the sector dominates the economy. There is also small-scale alluvial gold mining (a reserved activity for Papua New Guineans only), sand mining, and limestone mining. In addition, pressure for deep-sea mining is growing with the rising demand for rare minerals to support the expanding technology sector.

Three new oil and gas projects are on board in the petroleum sector: the Stanley project, the Papua LNG Project (Elk-Antelope gas discoveries), and Pasca A. Other gas projects in development, such as the P'nyang field to supply PNG LNG Project expansion, are ongoing.<sup>92</sup>

Mining, oil, and gas extraction in PNG has had weak environmental regulation, environmental degradation, adverse social impacts, and limited community gains. Environmental and social impacts of mining, oil and gas extraction include:<sup>93</sup>

- gendered inequality and inequity
- fraudulent consent
- displacement
- benefit sharing disagreement and disparity
- social breakdown
- land alienation
- pollution (from tailings runoff, including increases in heavy metals, sedimentation, and lowered water quality)
- biodiversity loss and changes
- greenhouse gas emissions (for example, gas flaring)
- poor health
- social conflict.

An important issue is the disposal of mine tailings, which constitute up to 99 percent of the material mined. Tailing dams are prone to failure in high seismic activity and extreme rainfall events. Three mines in PNG and one in Indonesia are the only places in the world where mine tailing is licensed to be discharged into rivers,<sup>94</sup> and this has had severe consequences for places such as the Fly River.<sup>95</sup> In March 2020, the NEC recommended banning all riverine tailings disposal for all future mines. The ban is not retrospective, and changes to legislation have yet to be introduced. Deep-sea disposal is an alternative practised in 16 mines in six countries. It is now banned in most of the world due to its environmental impacts, but it may be a viable alternative in a few countries, including parts of PNG where deep water is close to the shore, provided strict conditions are followed.<sup>96,97</sup>

The Mining Project, Rehabilitation, and Closure Guidelines recognize that mine closure and reclamation need to be planned early in the mining process to maximize the beneficial outcomes following mine closure.<sup>98</sup>

<sup>90</sup> Department of National Planning and Monitoring, PNG's Voluntary National Review 2020: Progress of implementing the SDGs, Port Moresby.

<sup>91</sup> Department of National Planning and Monitoring (DNPM) (2023), Papua New Guinea Medium Term Development Plan IV 2023-2027. National prosperity through growing the economy. DNPM, Port Moresby

<sup>92</sup> PNG Extractive Industry Transparency Initiative (PNG EITI) (2023). 2021 Papua New Guinea Extractive Industries Transparency Initiative (PNG EITI) Report.

<sup>93</sup> Mudd, G.M. et al, Mining in Papua New Guinea: A complex story of trends, impacts and governance', *Science of the Total Environment* 741, 140375, 2020. <https://doi.org/10.1016/j.scitotenv.2020.140375>

<sup>94</sup> Kwong, Y.T.J. et al, 'Comparison of Environmental Impacts of Deep-sea Tailings Placement Versus On-land Disposal'. *Water, Air, Soil Pollut.* 230, 287, 2019. <https://doi.org/10.1007/s11270-019-4336-1>

<sup>95</sup> Busilacchi, S. et al, Chapter 8, Ok Tedi Mine, in: M. Moran & J. Curth-Bibb (Eds). *Too Close to Ignore: Australia's Borderland with PNG and Indonesia*, Melbourne University Press, Melbourne, Australia, 2020.

<sup>96</sup> GESAMP, 2016. 'Proceedings of the GESAMP International Workshop on the Impacts of Mine Tailings in the Marine Environment'. International Maritime Organisation, London, 2016.

<sup>97</sup> Kwong et al, 2019

<sup>98</sup> Mineral Resources Authority of PNG, International Forum on Mining, Minerals, Metals and Sustainable Development, Mining Project Rehabilitation and Closure Guidelines Papua New Guinea, 2019.

However, due to the uneven distribution of benefits from this sector and the breakdown of traditional culture associated with mining, many mines and oil and gas sites are witnessing opposition from associated landowning communities.

Given that the PNG economy relies heavily on the extractive resource industry, interventions must improve the industry's economic, environmental, and social performance.

#### 4.4.8 Climate change and green energy

The impacts of global climate change are driving vulnerabilities associated with more extreme weather events, rising sea levels, and potential changes to biodiversity, including loss of livelihoods. Over 80 percent of the country's population is susceptible to climatic extremes due to their direct dependence on natural resources, subsistence agriculture, and limited adaptation capacity. According to the UN Office for Disaster Risk Reduction (UNDRR, 2019b), over half a million people live in coastal villages exposed to rising sea levels, coastal degradation, and storm surges. These diverse risks have implications for human rights as the negative impact on lives and livelihoods may fuel social unrest and increase vulnerability for marginalized populations.

Global climate model projections by the Australian Bureau of Meteorology indicate that for PNG in the coming century:

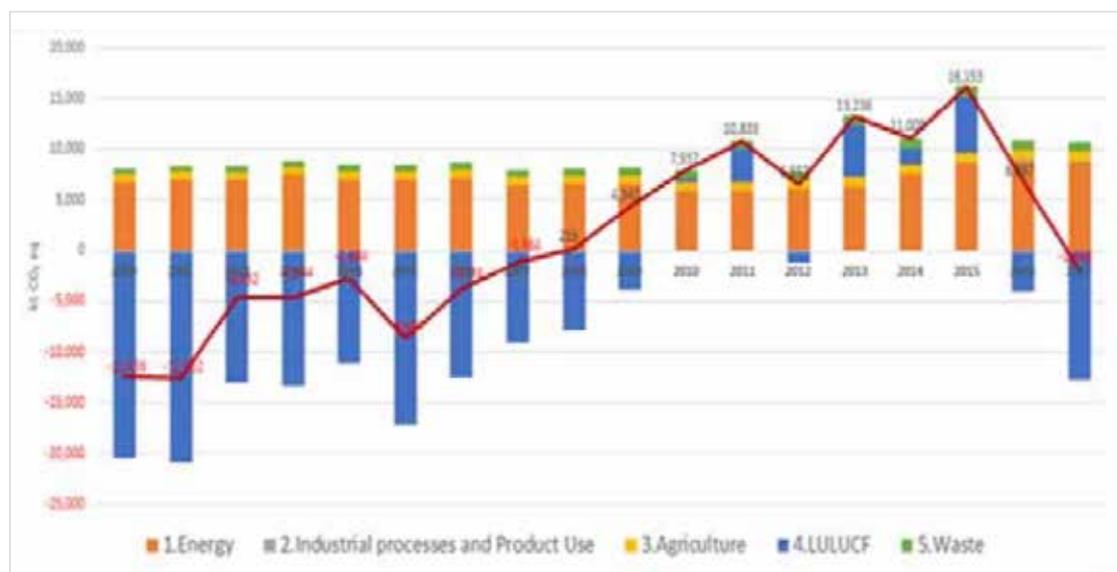
- El Niño and La Niña events will continue to occur in the future (very high confidence), but there is little consensus on whether these events will change in intensity or frequency.
- El Niño outlooks across the four leading forecasters are mainly in concurrence. The World Meteorological Organization (WMO),

the US National Oceanic and Atmospheric Administration, and the International Research Institute for Climate and Society of Columbia University have all released their El Niño declarations. The Australian Bureau of Meteorology holds firm on their El Niño Alert but notes in their latest update on 29 August 2023 that El Niño is just below the threshold for declaration while the Indian Ocean Dipole appears likely to become positive between September and November 2023.<sup>99</sup>

- annual mean temperatures and extremely high daily temperatures will continue to rise (very high confidence)
- average rainfall is projected to increase in most areas (medium confidence), along with more extreme rain events (high confidence), and droughts are projected to decline in frequency (medium confidence)
- ocean acidification is expected to continue (very high confidence)
- the risk of coral bleaching will increase (very high confidence)
- sea level will continue to rise (very high confidence).

PNG has been a world leader in pressing for action against climate change. In 2016, PNG adopted the Paris Agreement and, in 2021, supported the Glasgow Climate Pact and the Glasgow Leaders' Declaration on Forests and Land Use, which commits to halting and reversing forest loss by 2030. The vast natural forests of PNG play an essential role in regulating climate, and PNG was traditionally a carbon sink. However, by 2015, PNG had become a net carbon source due to accelerated land clearing and land-use change and increases in emissions from the energy sector. Net emissions dropped below zero in 2017 as the forest clearing and logging rate decreased. However, emissions from energy sources have continued to increase (Figure 22).

**FIGURE 22: TOTAL ESTIMATED EMISSIONS OF GREENHOUSE GASES, 2001-2017**



Source: Government of Papua New Guinea, 2022

<sup>99</sup> Asia and the Pacific: El Niño Humanitarian Snapshot - Focus on Indonesia, Timor-Leste and Papua New Guinea (As of 31 August 2023) - World | ReliefWeb

Mitigation efforts have centred on the REDD+ initiatives (see Section 4.4.4 Forests) and the transition to renewable energy. PNG has a high potential for renewable energy from hydropower, solar, wind, biomass, and geothermal sources. After launching the National Energy Policy 2017-2017, the National Energy Authority was established in 2012 and mainly focuses on energy development in the country. However, barriers must be overcome to enable the widespread adoption of renewable energy.<sup>101</sup> These barriers include the lack of an enabling policy environment (for example, a fixed national electricity tariff, which is subsidized and does not cover the total cost of generation and distribution). Also, there is a lack of readiness from the private sector and financial services concerning renewable energy, reliable data about demand (and supply), vandalism, and infrastructure theft.

Adaptation and building resilience are focus areas for GoPNG as impacts from climate change increase. The NAP 2022-2030, supported by UNDP, began preparation in 2020 and was launched in 2022. It provides a clear stepwise sectoral framework with a vision for the government's intervention in resilience and adaptation to the adverse effects of climate change. It has indicative timelines, targets, and indicators priorities to be addressed or implemented in partnership with sector agencies, academic institutions, development partners, and private sector entities. The NAP provides the Sectoral Planning Guidelines for climate change adaptation and financing and Implementation Guidance to facilitate the design and implementation of identified/prioritized climate change adaptation measures. The guidelines in the NAP aim to enable decision-making in priority sectors when identifying and prioritizing climate change adaptation options to address critical sectoral climate change impacts, build synergies across sectors, and promote a gender-responsive and inclusive approach.

The NAP addresses nine priority areas for adaptation identified in the country's Nationally Determined Contributions (NDC) and National Communications to the UN Framework Convention on Climate Change (UNFCCC), namely:

1. coastal flooding and sea level rise
2. inland flooding
3. food insecurities
4. cities and climate change
5. climate-induced migration
6. damage to coral reefs
7. malaria and vector-borne diseases
8. landslides.

This requires a whole government approach to promote the government's development agenda effectively and systematically, "leaving no place or person behind." Overall, the NAP will:

- Strengthen institutional capacities and the ability to mainstream climate change adaptation and disaster risk reduction effectively.
- Build resilience at the national, subnational, and sectoral levels through information and awareness-raising, education and capacity building, and the provision of early warning systems
- facilitate resource mobilization and foster public and private investments in climate change adaptation in priority areas.

PNG's Enhanced NDCs were launched/submitted to the UNFCCC Secretariat in 2020. However, as highlighted in the NDCs, significant gaps remain in disaggregated data availability, funding, capacity, and technical support to assist PNG on the road to inclusive adaptation policy and practice.

UNDP has been supporting the implementation an ADB-funded pilot project to strengthen resilience and adaptation to climate change in 21 islands and atolls in Morobe, Manus, East New Britain, and Milne Bay provinces, as well as Bougainville. This work encompasses comprehensive climate change vulnerability assessments as a basis for small grant investments decided upon by communities to enhance the communities' adaptation to climate change. It also encompasses food security and fisheries (including establishing locally managed marine areas) and preparing gender-responsive disaster management strategies and emergency response plans for each island. Mainstreaming and aligning these approaches and results throughout and across local (Ward and LLG), provincial, and national levels are sought. Upscaling this approach would be a valuable avenue to address community resilience.

PNG has clear targets and policies for managing climate change. A key challenge is resourcing implementation. Financial resources, expert and technical advice, government systems, and community capacity are all needed. Development partners have contributed to at least 26 projects supporting PNG's climate change initiatives, and there are clearly defined needs for future support.<sup>102</sup>

The Climate Change Development Authority (CCDA) reviewed and amended the Climate Change (Management) Act 2015, and the new Act was enacted in Parliament in October 2023. The Act would enable the CCDA to implement some regulatory functions to mitigate climate change-compatible development and adaptation actions through established legal and institutional rules. Following the publication of the National REDD+ Strategy of PNG in 2017, the first and second Biennial Update Reports were published in 2019 and 2021, respectively, followed by the second Enhanced NDC 2020 report and the Third National Communications Report 2021. The NDC provides a framework for mitigation and adaptation to the impacts of climate change. In 2023, several REDD+ policy documents were drafted, published, or launched, namely: i) REDD+ Development Guidelines (2023); ii) Free Prior Informed Consent (2023); iii) Benefit Sharing Distribution Mechanism; iv) Grievance Redress Mechanism; v) Carbon Market regulation (before NEC for approval); and REDD+ Implementation plan (drafted for 2024 and beyond).

<sup>100</sup> Climate Change and Development Authority (CCDA) (2020). Papua New Guinea's enhanced Nationally determination contribution 2020. CCDA, Port Moresby.

<sup>101</sup> Global Green Growth Institute, 'Green Growth Potential Assessment Papua New Guinea Country Report', 2019.

<sup>102</sup> GoPNG, Papua New Guinea's Second Biennial Update Report to the United Nations Framework Convention on Climate Change, 2022.

#### 4.4.9 Sustainable land use planning

In PNG, up to 97 percent of the land is in customary ownership. The land is central to an individual's and group's sense of social identity and belonging, and this knowledge is passed on verbally from one generation to the next. The PNG Constitution recognizes customary land tenure; hence, exclusive individual land ownership and inheritance of land are limited.

Progress in land use planning in PNG has been slow and disjointed. There is no widespread spatial planning across the country or within provinces or LLGs, the capacity and systems to deliver the required outcomes for biodiversity and communities are limited, and there is a lack of integrated sectoral responses to land use.

The Physical Planning Act 1989 (as amended) provides land use planning for any resource development and urban planning executed through the Physical Planning Board. However, little influence exists because the government focuses only on planning alienated land (3 percent of State land). Most land is customarily owned, which hinders development and proper planning. This resulted in negligence or lack of strategic planning, budget allocation, and program coordination.<sup>103</sup>

In September 2023, the National Sustainable Land Use Policy (NSLUP) was launched. It provides the legislative framework that defines the powers, roles, and responsibilities of all levels of government in delivering public services. The policy is synchronized with the physical planning and spatial definition and covers three major themes or zones, namely:

1. Development Promotion (urban development lease and sub-lease to promote economic development)
2. Conservation (protected area, conservation, and cultural protection)
3. Sustainability (socio-economic and resource development).

The policy also focuses on land areas covered by the public domain and the national grid, such as national roads, highways, and power grids. It aims to incorporate and manage land uses across PNG in different sectors. It provides the pathway for bottom-up planning, starting at the LLG and ward level, up to the district level and subnational level, due to rising population, scarcity of land, or increasing demand for land and resources.

Various government entities, NGOs, or community-based organisations overlap and do the most development and sectoral plans. Though NSLUP, all plans will be combined to develop a national land use plan for the country and to unlock development. Generally, the action plan or strategy of the NSLUP is to ensure:<sup>104</sup>

1. economic growth
2. food security
3. environment conservation
4. climate change
5. natural disaster and geohazards

6. land use information management system
7. institutional and capacity building.

The focus on land formalization and registration of land titles can significantly leave customary landowners behind if this process diminishes or eradicates the rights attached to their land. In addition, this impacts women, who have limited land ownership and unequal access to resources and decision-making concerning land.

At the national level, priority zones of nationally important biodiversity should be identified as areas of constraint to broadscale land clearing. Biodiversity matters should be mainstreamed into all land use planning and marine planning.

In addition, local land use plans are needed to identify what communities value, which areas are constrained, and which areas offer the potential for a range of land uses (for example, agriculture, settlement, conservation, and industry). This matter is a crucial way to minimize land use conflicts, protect people's rights (including women), ensure sound management of resources, and preserve cultural values. This planning effort needs to be coupled with effective dispute resolution processes. The GEF-funded UNDP project (2021-27) aims to establish sustainable integrated land use planning systems across New Britain, including scaling up land use planning processes from the community to the national level. Similarly, the UNDP project to strengthen integrated sustainable landscape management in Enga Province (2021-25) aims to integrate approaches from the local to provincial level and will include mapping of conservation areas, monitoring of target areas, and developing base maps and spatial information for effective land use planning.

Future approaches in land use planning need to focus on respect for customary landowners' rights by:

- recognizing the 'bundle of rights' that attach to land to free, prior, and informed consent
- recognizing landowners and other key stakeholders in bottom-up planning
- The national government supports provincial governments with datasets and funding to develop land-use plans
- The national government supports provincial governments in establishing Physical Planning Boards and hiring a physical planner
- building on and accommodating informal and semi-formal arrangements for land reform (for example, by identifying all existing tenure rights and rights holders and including all these people in the consultation processes)
- strengthening women's land rights (i.e., equitable engagement of women in law-making concerning inheritance, land titling and registration, equitable benefit sharing, and better sex-disaggregate data)
- developing 'fit for purpose' systems of land registration, administration of land tenure, and land use planning

<sup>103</sup> Department of Lands and Physical Planning (DLPP) (2022). National sustainable land use policy of Papua New Guinea 2022-2023. DLPP, Port Moresby.

<sup>104</sup> Department of Lands and Physical Planning (DLPP) (2022). National sustainable land use policy of Papua New Guinea 2022-2023. DLPP, Port Moresby.

- addressing corruption in land dealings
- addressing informal land and the need for expanded settlement areas (due to increasing population growth, in-migration, and displacement)
- updating legislation, policy, and plans
- improving data storage and usage systems, including establishing a central database management system using cloud-based technology
- enhancing capacity at all levels.

#### 4.4.10 Money laundering and environmental crimes

PNG conducted its first Money Laundering and Financing of Terrorism National Risk Assessment (NRA) in 2017, identifying strong indicators of large-scale corruption and illegal logging in the country's forest sector. In line with the findings of the NRA, the 2017- 2022 National Anti-Money Laundering and Counter-Terrorist Financing Strategic Plan requires the PNG Forest Authority to conduct a sectoral risk assessment. The NRA identified that environmental crime covers many offences and does not limit it to mining-related crimes and waste trafficking.

PNGFA collaborates with the BPNG Financial Analysis and Supervision Unit and PNG Customs to enforce national laws. These organizations also partner with international organizations, namely Interpol and the US Federal Bureau of Investigation (FBI), to combat international forest crimes and illegal activities within the forestry sector.<sup>105</sup>

The NRA also found the occurrence of illegal mining, such as alluvial gold mining, failures to comply with various conditions relating to mining and production activities designed to protect PNG's environment, and breaches of environmental conditions with waste dumping.<sup>106</sup>

#### 4.4.11 Those left behind

"Leave no one behind" is a transformative promise of the 2030 Agenda and its SDGs. It is a commitment where UN member States commit to eradicating poverty in all forms, ending discrimination and exclusion, and reducing inequalities and vulnerabilities that leave people behind and undermine their potential as individuals and of humanity as a whole.<sup>107</sup>

About 87 percent of PNG's population lives in peri-urban, rural, and remote settlements, and 80 percent in artisanal fishing, hunting, gathering, and gardening.<sup>108</sup> The Department of National Planning and Monitoring (DNPM) 2020 Voluntary National Review shows little cash flow and limited access to health care, education, sanitation, and clean water. Forty percent of these residents live below the international poverty line.<sup>109</sup> PNG's rural and remote communities are vulnerable to shocks from extractive industries (including mining, oil, gas, commercial fishing, and logging), mainly where people largely depend on the local environment for their livelihoods.

The remoteness of many of PNG's rural communities can create immense challenges for responding to disasters effectively, and the lack of local infrastructure and health services can have long-lasting impacts on communities following catastrophic events. Climate change already

affects the most disadvantaged and will result in many more people being 'left behind' unless actions are taken. Women and children suffer most adversely, and it was reported that "women (are) often most vocal about dimensions of vulnerability (e.g., population growth) and their links to social issues (e.g., alcoholism, domestic violence, and petty crime) that they viewed as likely to be heightened through ecosystem decline."<sup>110</sup>

## Recommendations

Recommendations for improving environmental management and governance can be grouped into five headings (as below). Most of the proposed recommendations require government agencies to take the lead. UN agencies can support and assist, where relevant, and promote policies and actions toward achieving the SDGs.

### 1. Good environmental governance

- Finalize and implement the National Biodiversity Strategy and Action Plan.
- Formalize participation in the Nagoya protocol and finalize legislation and policies addressing genetic property rights and access benefit-sharing agreements.
- Include biodiversity values in national and subnational accounting to reduce the perverse incentives currently applying to development.
- Improve governance of the forestry industry to strengthen forest legality and effective participation of stakeholders. Ensure the register of critical activities is maintained and available for public review.
- Integrate and support provincial and local government planning and implementation for WaSH and waste management.
- Ensure all mining company annual environmental reports are made publicly available in a format that allows them to be readily assessed. Regulatory agencies or independent bodies should oversee regulation, enforcement, and accountability rather than industry self-regulation. CEPA will do independent monitoring and regulatory work on environmental conditions without companies' input in existing mining approvals and environmental permits.
- Implement the activities in the National Adaptation Plan for climate change adaptation.
- Finalize and implement the draft biodiversity offsets policy, emphasizing avoiding and mitigating damage wherever possible, followed by appropriate offsets.
- Support the implementation of the National Sustainable Land Use Policy.

### 2. Stronger environmental regulation of the industry and enforcement of conditions

- Require the mineral, oil, and gas industries to reduce and/or offset their greenhouse gas emissions, including fugitive emissions.
- Tailings and other mining waste must be contained and managed rather than dispersed to the environment for all new mines and extensions of existing mines.

<sup>108</sup> Bourke, M., 'COVID-19 and food systems in Papua New Guinea', in Robins L, et al., COVID-19 and Food Systems in the Indo-Pacific: An Assessment of Vulnerabilities, Impacts and Opportunities for Action, ACIAR Technical Report 96, 2020

<sup>109</sup> World Bank Group, 2020. 'Poverty and Equity Brief: Papua New Guinea'. World Bank Group

<sup>110</sup> McKenna, K. et al. 'Community responses to the effects of climate change in PNG'. Devpolicy Blog Dev. Policy Central, 2019, <<https://devpolicy.org/community-responses-to-the-effects-of-climate-change-in-png-20190703/>>

- Support implementing the ban on unprocessed 'round log' timber exports, including an exit strategy for existing permits and agreements.
- Improve monitoring and surveillance of logging practices through TLS and forest certification.
- Implement mitigation action for the transport sector as identified in the National Climate Compatible Development Management Policy.
- Create a node of industrial sustainability that minimizes waste, reduces emissions in the industrial process, product use, and waste sectors, and enhances inter-industry cooperation, effectively utilizing local resources.
- Reduce emissions from the LULUCF (Land Use, Land-Use Change, and Forestry) sector by effectively implementing the national REDD+ Strategy 2017-2027 and reducing the impacts of commercial logging, subsistence agriculture, and oil palm plantations.
- Secure funding will be needed to transition to 78 percent power generation from renewable sources by 2030 and accelerate the implementation of reliable and safe energy efficiency initiatives, including off-grid mechanisms.
- Ensure those left behind are not subject to further environmental harm through any development activity.

### **3. Wise allocation of land and water**

- Support and implement the National Sustainable Land Use Policy and local land dispute resolution.
- Better environmental impact studies are required for all developments.
- Expand the protected area network and Community Conservation Area, and improve partnership and protected area management according to the Policy on Protected Areas. Provide regular updates of maps and statistics, including ecological representation. Support tradition, tambu systems, and local practices for sustainable management.
- Address invasive species in PNG, including environmental pests.
- Manage species sustainably and develop species management plans where needed.
- Update provincial forest plan.
- Support local-level ownership dispute resolution.
- Increase wildlife conservation awareness programs.

### **4. Actual capacity where it is needed**

- Employ and support environment staff at national and provincial levels. Ensure high transparency, accountability, and anti-corruption measures for jobs related to environmental approvals, forest operations, and wildlife trade.
- Support environmental research, especially PNG-based organizations and researchers, including a formal system to mentor and support environmental scientists.

- Resource CEPA and provincial governments should enhance protected area management.
- Support PNG's national NGOs/community-based organisations working for environmental and social benefits.
- Build capacity for on-ground (and water) management through support for local management committees and rangers on enforcement of protected area and biodiversity laws; invasive species control; maintenance of community and tourist facilities; environmental education and monitoring; and maintaining clean water and waste systems.
- Fund and provide ongoing capacity to support the National Forest Monitoring System and National Forest Inventory.
- Build capacity in waste management and recycling.
- Consider a third-party 'assessor' empowered to report on the environmental activities of mining companies and government and follow through on commitments to communities and customary landowners.
- Assist communities in understanding the implications of development proposals and their likely expansion to provide or deny informed consent. Ensure women and vulnerable groups are equally represented in the process.
- Strengthen PNG's greenhouse measurement, reporting, and verification system, including the capacity to report on emissions and land clearing rates more regularly.
- Develop teams of capable responders at a local level.

### **5. Compensation, incentives, and innovation for environmental management**

- Implement benefit-sharing agreements and livelihood support for conservation-related initiatives, including payment for ecosystem services, incorporating ecosystem services into national and subnational accounting, livelihood projects, ecotourism and research payments, and benefit-sharing agreements.
- Explore and support blue carbon options and the sustainable blue economy.
- Support marine and coastal tourism.
- Find new models for providing partially or fully subsidized clean water and waste services.
- Enforce compensation payments with fair distribution to those affected.
- Plan for future migration and increased mobility into rural and urban areas, likely from mining, oil and gas exploration and extraction, forest operations, other industries, natural disasters, and climate-change-related issues such as sea-level rise.
- Strengthen, resource, and expand programs that address 'those left behind' and environmental matters.

## 4.5 Social exclusion analysis

### 4.5.1 Population and housing

In 2021, the government estimated PNG's population to be 11.8 million, with a high level of diversity, 600 tribes, and 840 languages. The annual population growth rate has declined from 2.2 (2010) to 1.9 (2022) because of low life expectancy rates and high out-migration to other countries. Based on UN population projections (2015-2030) from the 2011 Census, PNG remains demographically young: 43 percent are children (under age 18); 14 percent are in the 0-4 age group; 13 percent are ages 5-9; and 17 percent are 10-17 years. Children in the second decade of life (ages 10-19) comprise 21 percent of the total population in 2022, a percentage higher than the global average of 16 percent.

Despite a high fertility rate of 3.52 births per woman aged 15-49, the SDES found that fertility rates have declined – the average number of children a woman had given birth to was 1.9 in 2022 compared with 2.3 in 2015-2018. Also, the number of children born to adolescents (15 to 19 years old) declined from 12 children per 100 adolescents in 2016-2018 to seven children per 100 adolescents (in urban areas, six children, and in rural areas, seven children) in 2022.<sup>111</sup>

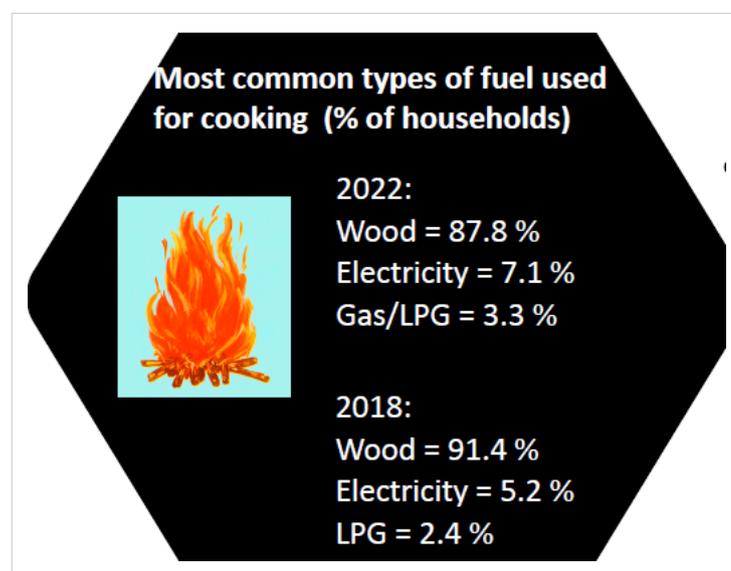
Settlement patterns in PNG are determined by land ownership and rights to build. People live in villages according to a geographical feature such as the coastline or a river. In addition, people can shift their settlement in search of easy access to services, build homes with easy access to a nearby road, or move in search of economic opportunities. In terms of population density, the National Capital District (NCD), the Highland provinces, East New Britain, ARoB, and Manus are more densely populated

than most other areas, followed by Morobe, Madang, West New Britain, New Ireland, and Milne Bay. The Southern region (excluding NCD) and the Western part of the Momase region are less densely populated. Most of the population lives in the Highlands region (4.57 million), while the least populated is the Islands region (1.76 million).<sup>112</sup>

The average household size in PNG has declined from 5.5 persons per household in 2011 (7.4 persons in urban areas and 5.3 persons in rural areas) to 5.1 persons per household in 2022 (5.8 persons per urban household and five persons in rural households). Ownership of dwelling units declined between 2011 and 2022. In 2011, 92.9 percent of persons owned their dwelling units compared with 92.9 percent in 2011. In the urban areas in 2022, 78.1 percent of people owned their homes, while in rural areas, 89.4 percent.<sup>113</sup>

Access to energy and technology has improved since 2018. In 2022, more households used electricity and gas/LPG, while fewer used wood as an energy source. The number of households using solar energy increased from 32.2 percent in 2018 to 44 percent in 2022. Meanwhile, electricity from the grid remained the same at 15 percent of households, while the use of battery-powered lanterns declined. The number of households with mobile phones increased from 56.3 percent in 2018 to 71.1 percent in 2022 (93.3 percent of urban households and 67.2 percent of rural households). Households with computers increased from 10.6 percent in 2018 to 14.5 percent in 2022 (38 percent urban households and 10.4 percent rural households). The SDES found that in 2022, 36.2 percent of households had internet access, broken down to 66.2 percent of urban households and 31 percent of rural households.<sup>114</sup>

**FIGURE 23: MOST TYPICAL TYPES OF FUEL USED FOR COOKING (% OF HOUSEHOLDS)**



Source: PNG National Statistical Office, Socio-demographic and Economic Survey, 2022

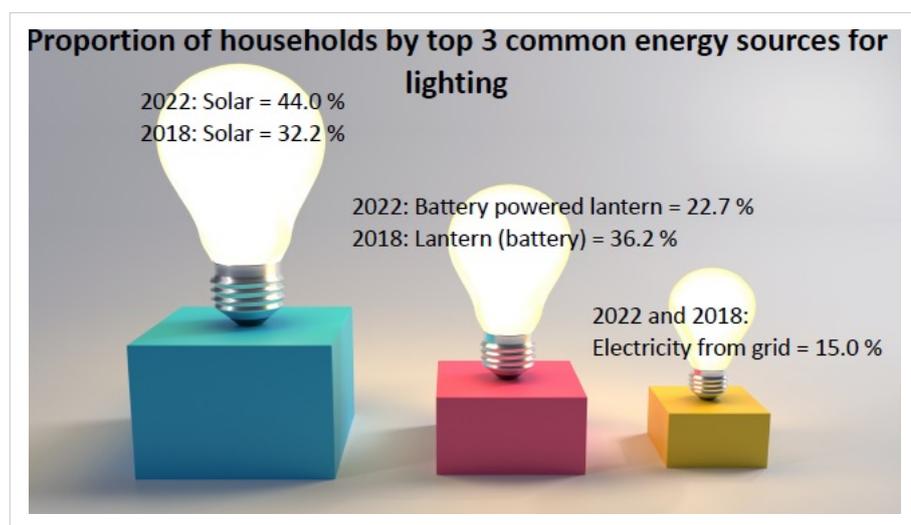
<sup>111</sup> PNG National Statistical Office Socio-demographic economic survey, 2022

<sup>112</sup> Noji Frank, Bardakova Lidia, Lavu Esther, Yamarak Londari, Anton Melkie, Papua New Guinea: Population Situation Analysis, UNFPA Papua New Guinea December 2023 Report

<sup>113</sup> PNG National Statistical Office, Socio-demographic Economic survey, 2022

<sup>114</sup> Ibid

**FIGURE 24: PROPORTION OF HOUSEHOLDS BY TOP 3 FAMILIAR ENERGY SOURCES FOR LIGHTING**



Source: PNG National Statistical Office, Socio-demographic and Economic Survey, 2022

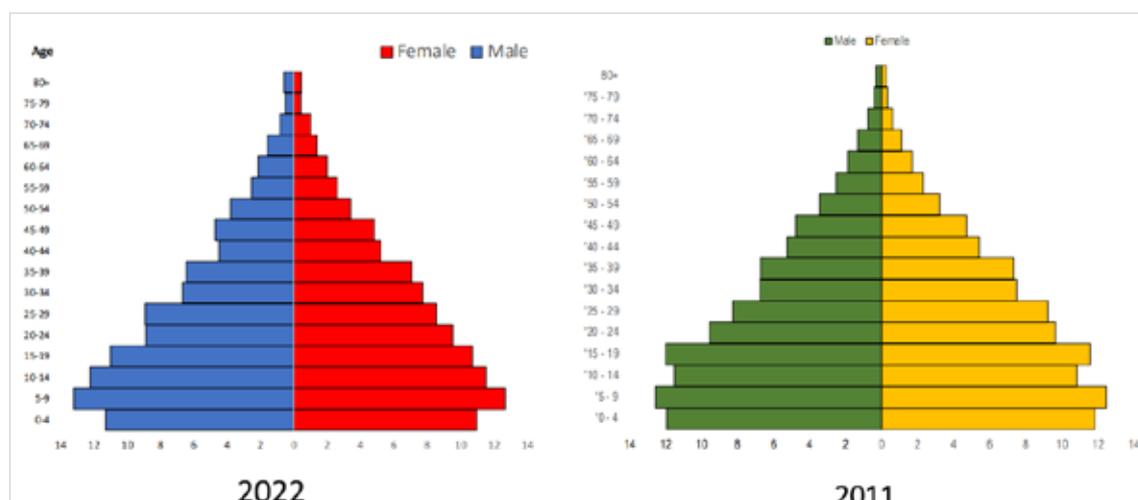
Fifteen percent of the population lives in urban areas, including Port Moresby and Lae, provincial capitals, and cities like Madang, Wewak, Goroka, Mt Hagen, and Rabaul. While many hope to find a better life in the urban areas, others flee the conflicts in some rural areas. Many internal migrants become unemployed and try to make ends meet through opportunities in the informal sector with low and often irregular incomes and long working hours. With the lack of an extensive homegrown entrepreneurial class, economic development has been limited, as there is a lack of road infrastructure and limited access to markets and finance.<sup>115</sup>

The median age of the PNG population increased from 19.7 years in 2000 to 21.4 years in 2011 and 21.7 years in 2022. Men outnumber women in PNG – the sex ratio 2022 was 107 men for every 100 women. The SDES shows that 15.7 percent of households were headed by women in 2022,

compared with 13.4 percent in 2011. The percentage of female-headed households increased from 13.5 percent in 2011 to 15.7 percent in 2022.<sup>116</sup>

An important aspect of population dynamics concerns population mobility. Internal migration is the main factor in urban growth in PNG, and it is linked to the influx of rural-to-urban migration. Such internal migration is considered to be primarily family-motivated. Urbanization in PNG has been slow, and with only 12 percent of the total population living in urban areas, it has been a gradual process. Nevertheless, urban centres are experiencing over-crowdedness due to the continued influx of new people. Many young migrants, searching for schooling or labour opportunities and a better life, end up unemployed and depending on their relatives or tribe members in urban centres. While most migrants end up in the informal sector, some may be forced to engage in criminal activity to make a living.

**FIGURE 25: POPULATION PYRAMIDS, 2022 AND 2011**



Source: PNG National Statistical Office, Socio-demographic and Economic Survey, 2022

<sup>116</sup> PNG National Statistical Office, Socio-demographic and Economic Survey, 2022

<sup>117</sup> Nojj Frank, Bardakova Lidia, Lavu Esther, Yamarak Londari, Anton Melkie, Papua New Guinea: Population Situation Analysis, UNFPA Papua New Guinea December 2023 Report

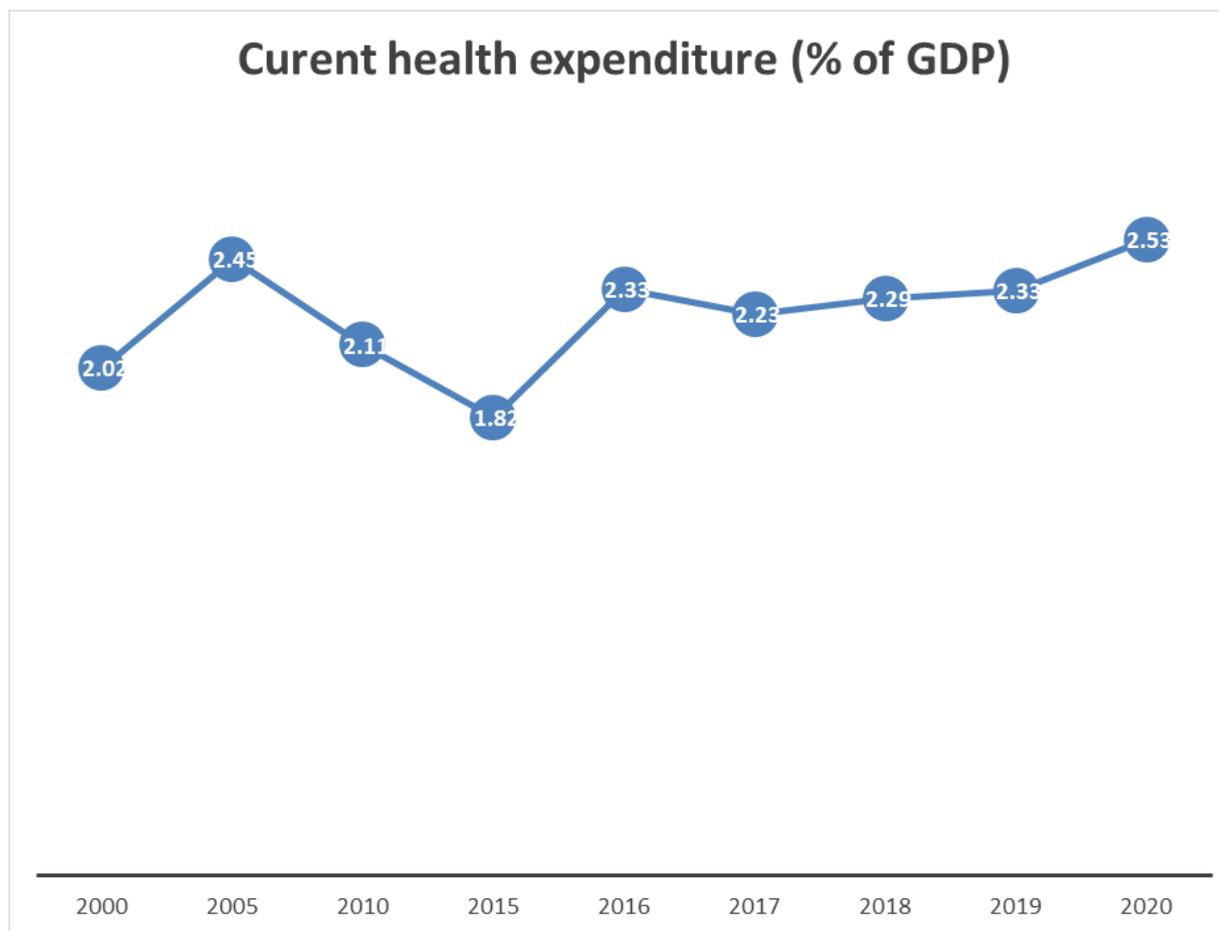
#### 4.5.2 Poverty and inequality

About 87 percent of PNG's population live in peri-urban, rural, and remote settlements, and 80 percent rely on artisanal fishing, hunting, gathering, and gardening.<sup>118</sup> There is little cash flow and limited access to health care, education, sanitation, and clean water.<sup>119</sup>

#### 4.5.3 Health and well-being

Current health expenditure as a percent of GDP for 2020 was 2.53 percent, compared with 1.8 percent in 2015 and a maximum of 3.3 percent in 2014. The world average in 2020, based on 179 countries, is 7.04 percent. The per capita health expenditure has increased since 2015 to \$65 in 2019. The highest expenditure per capita per year was \$96 in 2014.

**FIGURE 26: PNG HEALTH EXPENDITURE**



Source: World Bank Development Indicators (accessed March 2024)

Despite substantial needs, there is a considerable lack of services and support for people in PNG with mental health conditions, limited access to support to prevent poor mental health, and programs to promote psychosocial well-being. Personnel with mental health training and skills are extremely limited across all sectors, which places a significant barrier to implementation. Services that are responsive to the needs of children and adolescents are minimal, particularly at the primary health care level, and over-reliance on tertiary and institutional-based care also contributes to high unmet needs and delays in access to services. Insufficient budgets for mental health and psychosocial support-related programs and budgeting processes that do not support agenda-based

and cross-sectoral budget planning are also key challenges. There are no large-scale programs to support healthy peer relationships and address peer victimization in schools, communities, and online spaces.

The national strategy for addressing mental health literacy, stigma, and harmful norms is limited in scope and implementation, and critical cross-cutting challenges impact the implementation of mental health and psychosocial support. There is currently limited national-level commitment to, and leadership of, mental health and limited mechanisms to support multi-sectoral planning and coordination. While mental health and well-

<sup>118</sup> Bourke, M., 'COVID-19 and food systems in Papua New Guinea', in Robins L, et al., COVID-19 and Food Systems in the Indo-Pacific: An Assessment of Vulnerabilities, Impacts and Opportunities for Action, ACIAR Technical Report 96, 2020.

<sup>119</sup> Department of National Planning and Monitoring, Papua New Guinea's Voluntary National Review 2020: Progress of implementing the SDGs, Port Moresby.

being are integrated to some degree in the sectoral plans of education, social welfare, and justice, these generally focus narrowly on specific actions (such as the provision of school counsellors) rather than encompassing a more holistic vision for mental health and well-being and clear articulation of the sector's role and response. The lack of clear plans, guidance, and structures to support implementation and multi-sectoral collaboration has contributed to limited coordination at a subnational level.

Under-5 mortality decreased from 75 deaths per 1,000 births for the five years before the 2006 DHS to 49 deaths per 1,000 births in the period measured by the 2016-2018 DHS. This statistic means nearly 1 in 20 children in PNG dies before age 5. Two-thirds of these deaths occur during the first year of life. Infant mortality (deaths of children under one year of age) declined from 57 to 33 deaths per 1,000 births between 2006 and 2016-18. World Bank indicators show that between 2015 and 2019, the neonatal and infant mortality rates were 23.98 and 40.25 per 1,000 live births, respectively. The neonatal mortality rate for rural infants is seven points higher than for urban infants.

Under-5 mortality rates remain higher in rural areas (49) than in urban areas (41), reflecting the ongoing health and well-being imbalance between rural and urban PNG. Overall, childhood mortality is higher in the Highlands region than in other regions. It is also higher among births occurring less than two years after a prior birth and births of order seven or above. Childhood mortality generally decreases with an increase in the mother's education and household wealth. By 2016, among children with known birth weights, 14 percent weighed less than 2.5 kg at birth, and only 35 percent of children aged 12-23 months had received all essential vaccinations.

Three-quarters (76 percent) of women in PNG who gave birth five years before 2016 received antenatal care from a skilled provider. Just under half of the women had at least four antenatal care visits during their last pregnancy; however, only 17 percent had an antenatal care visit during their first trimester. Almost nine out of ten pregnant women (87 percent) who received antenatal care had their blood pressure measured, eight out of ten (78 percent) had a blood sample, and 46 percent had a urine sample taken. Seven in ten women took iron supplements during pregnancy. Only 38 percent of women's most recent births were protected against neonatal tetanus.

Over half (55 percent) of births in PNG are delivered in a health facility. Skilled providers assist fifty-six percent of births. Only three percent of births are delivered via caesarean section. Forty-six percent of women and 45 percent of newborns received a postnatal check within the first two days of birth. The main problems women face in accessing health care for themselves are getting money for treatment and distance to a health facility.<sup>120</sup>

The 2016-2018 DHS shows that 23 percent of women and 27 percent of men have comprehensive knowledge about HIV. Further, 52 percent of women and 54 percent of men know that HIV can be transmitted during pregnancy, 54 percent of women and 56 percent of men know that HIV can be transmitted during labour, and 53 percent of women and 48 percent of

men know that HIV can be transmitted during breastfeeding. Regarding HIV testing, 58 percent of women and 63 percent of men know where to get an HIV test, and 25 percent of women and 19 percent of men have ever been tested and received the results.

On average, 65 percent of children and adults with HIV were undergoing Anti-Retroviral Therapy (ART). The proportion of pregnant women who are receiving ART for Prevention of Mother to Child Transmission has been on the rise in recent years. Between 2010 and 2017, it increased from 5 to 41 percent. Although the annual number of deaths resulting from AIDS illnesses has decreased by around 26 percent since 2010, the number still amounts to 1,000 deaths per year.<sup>121</sup>

While estimates vary, the most recent national survey report for maternal mortality was 171 per 100,000 live births. These deaths are primarily the result of preventable or treatable conditions, such as haemorrhages, infections, and pre-eclampsia or eclampsia. A Task Force on Maternal Mortality reported in 2019 that women opt for the risks of an unattended birth at home because many health facilities often did not have staff or only had male staff. Many facilities lack running water and electricity needed to ensure a safe and sanitary environment for giving birth, and many facilities do not have refrigerators for vaccines or adequate stock of essential drugs and supplies to treat common conditions. Cost is a significant issue for many women, including the cost of transport and payments for services and supplies that should be free.

According to a 2019 study,<sup>122</sup> 41 percent of male and 49 percent of female deaths in PNG are due to infectious diseases, maternal, neonatal, and/or nutritional causes, while 45 percent of male and 42 percent of female deaths arise from non-communicable diseases. Provinces with the highest estimated mortality due to endemic infectious, maternal, neonatal, and nutritional causes are geographically isolated. At the same time, deaths from heart disease and strokes are higher among those with comparatively high socio-economic status.<sup>123</sup>

In the past decade, contraceptive use among married women increased from 32 percent in 2006 to 37 percent in 2016-18. Modern methods have increased from 24 percent to 31 percent over the same period. Almost nine out of ten users of modern contraceptive methods obtained their method from a public (government) source; only five percent obtained it from private medical sector sources. In 2011, only 16 percent of all new contraceptive users discontinued use of their method within 12 months; four percent switched to another method. One-quarter of currently married women (26 percent) have an unmet need for family planning. Over half (59 percent) of currently married women have satisfied their demand for family planning.<sup>124</sup>

#### 4.5.4 Nutrition

Stunting in children is correlated with lower measured cognitive abilities, fewer years of completed schooling, and lower earnings as an adult. The loss of adult productivity related to early childhood stunting has been linked with economic losses for the country - up to an estimated 11 percent of GDP.<sup>125</sup> Over the last decade, the national prevalence of chronic

<sup>120</sup> PNG Demographic and Health Survey 2016-2018

<sup>121</sup> Nojj Frank, Bardakova Lidia, Lavu Esther, Yamarak Londari, Anton Melkie, Papua New Guinea: Population Situation Analysis, UNFPA Papua New Guinea December 2023 Report

<sup>122</sup> Kitur, U., Adair, T., Riley, I. et al. Estimating the pattern of causes of death in Papua New Guinea. *BMC Public Health* 19, 1322 (2019). < <https://doi.org/10.1186/s12889-019-7620-5> >.

<sup>123</sup> <https://healthynewbornnetwork.org/country/papua-new-guinea>

<sup>124</sup> National Statistical Office (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.

<sup>125</sup> UNICEF Papua New Guinea, Country Programme 2018-2022: Nutrition Programme Strategy Note, 2016.

malnutrition (stunting) for children under five has exceeded 30 percent, the threshold considered “very high” in terms of public health significance. Unfortunately, the trend is continuing upward. Stunting was 43.9 percent in 2005-2007, 49.5 percent in 2010-2014, and 40.1 percent between 2015-2019.<sup>126</sup> The ADB reported a prevalence of 48.4 percent for 2020.

A new national nutrition survey is needed to understand the differences and causes of malnutrition in PNG. We know that in 2010, stunting was higher in boys (50.9 percent) than girls (47.9 percent) and higher in children aged 48-59 months (55.2 percent) than those aged 0-23 months (44.5 percent). Stunting was higher for children living in rural areas (51.2 percent) than those in urban areas (36.4 percent).<sup>127</sup> The worst affected are children in households in the bottom 40 percent of wealth distribution, whose mothers have either no education or secondary education. Among that group, 56 percent are stunted (compared to 30 percent in the wealthiest households). East Sepik, West Sepik, and Gulf provinces reported the highest prevalence of stunting in 2019, with Chimbu and NCD reporting the lowest.

If untreated, severe acute malnutrition can lead to a risk of death of up to 12 times more than non-malnourished children.<sup>128</sup> Child wasting (acute malnutrition) was 8.1 percent in 2004-2008, 14.1 percent in 2010-2014, and 6.1 percent in 2015-2019.<sup>129</sup> The worst affected are children living in households in the bottom 40 percent of wealth distribution and with more than two children in households under the age of five years. Thirteen percent of that group suffer from wasting (compared to five percent in the wealthiest population group). Wasting differed very little between girls and boys, with only a 0.7 percentage point difference. It was, however, higher in children aged 0-23 months (18.3 percent) compared to children aged 24-59 months (below 12.5 percent). Fourteen percent of the children admitted to health facilities in PNG were there because of severe acute malnutrition, and 27 percent of all registered children's deaths in 2015 were related to severe acute malnutrition.<sup>130</sup>

The PNG Dental and Medical Catalogue 2010 states that therapeutic food supplements required to treat the condition of severe acute malnutrition should be available in all major health facilities throughout PNG. Since then, and supported by the training of health care workers, the country's case-fatality rates for children under the age of five have shown a steady decline, signalling that acute malnutrition can be controlled and managed.

PNG is approaching a situation of double-burden malnutrition, as obesity in some population groups is increasing. At the same time, stunting prevalence also has not progressed towards achieving its target for obesity. The prevalence of obesity among children and adolescents aged 5-10 years has increased from 7.1 percent to 10.1 percent for girls within five years, in comparison to boys, which increased from 6.0 percent to 9.3 percent within the same period. The percentage of overweight children under five years was 3.4 in 2005, 7.7 in 2010, 8.9 percent in 2020, and 13.7 in 2010.<sup>131</sup> Interventions aiming to prevent both obesity and underweight at an early stage are needed to avoid health-related co-morbidities.

The nutritional status of women affects the intrauterine developmental process and cannot be separated from the birth weight of their children

and, consequently, child survival. In PNG, about eight percent of babies born each year have low birth weight, associated with maternal undernutrition and anaemia, among other causes. This is attributed to traditional beliefs and practices and inadequate access to nutritional information and adolescent-friendly services.

Breastfeeding is one of the most cost-effective practices to improve child health, nutrition, and development outcomes. In PNG, exclusive breastfeeding increased from 56.1 percent in 2006 to 59.7 percent in 2018. Exclusive breastfeeding rates decline with a mother's education and household wealth increase. Among the lowest wealth quintile, 56 percent of children were exclusively breastfed, compared to 45 percent among the highest quintile. Breastfeeding was more frequent among children delivered with assistance from health personnel (52 percent) than those assisted by a traditional birth attendant (47 percent).

The prevalence of anaemia among women of childbearing age (15-49 years) was estimated to be 36.6 percent in 2016, up from 34.2 percent in 2011, while the prevalence among children under 5 was 48.4 percent as of 2016 and 47.90 in 2011. As of 2016, the prevalence value was 44.8 percent among pregnant women compared to 36 percent among non-pregnant women.<sup>132</sup> Pregnant women take iron folate supplements and/or eat iron-rich foods to prevent anaemia. As per the 2016-18 DHS, 28 percent of women aged 15-49 who gave birth in the five years before the survey did not take any iron tablets during their most recent pregnancy, and only eight percent of women took iron tablets for 90 days or more during their most recent pregnancy.

Micronutrient deficiency contributes to childhood morbidity and mortality, and the prevalence of these deficiencies is high among children and women. The 2016-2018 DHS shows that 86 percent of children aged 6-23 months consumed foods rich in vitamin A in the 24 hours preceding the survey, while 41 percent consumed foods rich in iron. Seven percent of children aged 6-59 months had been given iron supplements in the past seven days, while 31 percent were given vitamin A supplements in the past six months. Children in urban areas (11 percent) were twice as likely to receive iron supplements as those in rural areas (six percent). Vitamin A supplements were also higher in urban areas (44 percent) than in rural areas (29 percent). Vitamin A deficiency affects children's sight and general immune system. The percentage of children consuming vitamin A-rich and iron-rich foods increases with the mother's education and household wealth.

Bottlenecks and barriers to strengthening public health and nutrition service delivery include:

- inadequate resources for scaling up proven models
- a lack of costed plans at the provincial level for specific interventions critical to quality primary health care.

Barriers to equitably delivered, quality health and nutrition services impact rural areas where needs are the greatest. Increasing needs can be found in urban slums as well. Constrained access to services, poor infrastructure, and quality affect care, as do minimal availability and

<sup>126</sup> Asian Development Bank, Key indicators for Asia and the Pacific in 2021.

<sup>127</sup> Global Nutrition Report (2021): < <https://globalnutritionreport.org/resources/nutrition-profiles/oceania/melanesia/papua-new-guinea/> >

<sup>128</sup> Olofin, I, et al., Associations of suboptimal growth with all-cause and cause-specific mortality in children under five years: a pooled analysis of ten prospective studies. PLOS One 8(5), 2013.

<sup>129</sup> Concern International, Global Hunger Index: Linking Health and Sustainable Food Systems, 2020.

<sup>130</sup> Government of Papua New Guinea, National Nutrition Policy, 2016-2026.

<sup>131</sup> Asian Development Bank, Key indicators for Asia and the Pacific in 2021.

<sup>132</sup> Index Mundi, “Papua New Guinea - Prevalence of anemia”, < <https://www.indexmundi.com/facts/papua-new-guinea/prevalence-of-anemia> >

accessibility of community-based, child and adolescent-friendly, family-centred, and multi-disciplinary care for physical and mental health and malnutrition conditions.

Bottlenecks, barriers to behaviour change, knowledge, and use of health and nutrition services are created by social norms, traditional beliefs, and gender inequalities. PNG has a high percentage of zero-dose children whose parents refuse to have them vaccinated due to misinformation or mistrust. Low reproductive, maternal, newborn, child, and adolescent health (RMNCAH) knowledge compromises healthcare decision-making, as do poverty and low educational attainment. There is low awareness of the importance of nutrition among the general population and key decision-makers. GoPNG currently lacks both strategy and assets for social behaviour change communication for nutrition.

#### 4.5.5 Sexual and reproductive health

The National Department of Health's National Sexual Reproductive Health Policy 2014 aims to foster improvement in the quality of life of all Papua New Guineans and thus contribute to decreased morbidity and mortality among the target population. The Policy states that women and girls, as well as men and boys, should have access to modern contraceptives free of charge in all health facilities; they should have equal access to quality sexual and reproductive health services and be encouraged to engage actively in reproductive health. However, in PNG, significant public health challenges remain in providing reproductive, maternal, newborn, and child health services and preventing and controlling infectious and non-communicable diseases. Compared to other Pacific Island Countries, PNG has relatively low coverage of essential services. The Universal Health Coverage index indicates limited service capacity and access. Universal access to emergency obstetric and newborn care is considered essential to reducing maternal and infant mortality rates. This access includes rapid access to well-functioning facilities for all pregnant women and newborns with complications.

Utilization of skilled sexual and reproductive health delivery services was found to be low among pregnant women in PNG and has not substantially increased. Data from 2023 revealed that individual-level factors such as wealth, employment status, educational level, and the number of antenatal care visits, as well as community-level factors such as access to healthcare facilities and place of residence, affected the degree to which skilled delivery services were utilized. A reason for the disparity between urban and rural areas in utilizing skilled delivery services concerns the long distances to reach health facilities in rural areas across PNG.<sup>133</sup>

A quarter of women did not receive antenatal care (2016–2018) (latest available data), a slight increase from 1996. There has been a small increase in the share of rural women who delivered in a health facility: from 43 percent in DHS 1996 to 51 percent in DHS 2016–18. The share of women who received a Tetanus toxoid injection, which is given to pregnant mothers to prevent neonatal tetanus, a significant cause of early infant death in many developing countries, remained at around two-thirds of pregnant women between 2006 and 2016.<sup>134</sup>

Between 2000 and 2020, a 39.7 percent decline in maternal mortality ratio was observed, from 312 to 192 maternal deaths per 100,000 live births. While a significant improvement, it is far from the SDG target of below 70. Women's access to antenatal care and the proportion of deliveries attended by a skilled health provider has increased, but these indicators remain low overall. The leading causes of maternal deaths have been attributed to post-partum haemorrhage, eclampsia, and unsafe abortions.<sup>135</sup>

PNG has 0.532 nurses and midwives per 1,000 population, which is low compared to neighbouring countries. There are 0.055 physicians per 1,000 people, significantly lower than in neighbouring Solomon Islands (0.191) and Vanuatu (0.186). This statistic is well below the WHO-recommended skilled health worker (physicians and nurses/midwives) density of 2.3 per 1,000 population needed to achieve 80 percent coverage of essential health services and reduce access gaps (WHO). A shortage of qualified health workers in rural and remote areas is a significant constraint that prevents access to essential healthcare services.<sup>136</sup>

There has been underinvestment in public health sector training, which has resulted in limited capacity concerning the required levels and mix of the health workforce. This issue is at a time when the country is undergoing a demographic and epidemiological transition with a consequent rise in the incidence of communicable as well as non-communicable diseases and with gaps in the provision of essential maternal and childcare services. Community health workers' involvement is one of the government's priorities in strengthening primary health systems to improve maternal and child health outcomes. A focus on increasing the number of community health workers is a critical strategic priority of the government. According to the Department of Health's Sector Performance Annual Review, there has been a lack of comprehensive nationwide provision of essential equipment to health centres and aid posts, including for pregnancy care, since 2001, while regular supplies have been conducted ad hoc.<sup>137</sup>

High maternal mortality ratios and overall poor maternal health need to be understood from a broader perspective, and different factors affecting women's health, including their status in society, need to be considered. Traditional beliefs and cultural and religious factors will likely affect women's health-seeking behaviour. Women and girls tend to have poorer access to healthcare and education services in the country compared to men.<sup>138</sup>

Family planning is one of the most cost-effective interventions for global health and sustainable development due to its high cost-benefit ratio. In PNG, there is limited understanding of the everyday practices used to prevent, reduce the risk of, avoid, cope with, or mitigate the impact of pregnancy. The use of vasectomy proved limited, with the need for more male involvement in family planning programming. Stockouts of one or more contraceptive methods by service delivery providers ranged from 91 to 57 percent, respectively, and meant a vital constraint to contraceptive use. Data at the subnational level show that contraceptive use varied considerably amongst the districts of each of the two provinces for which data were available.<sup>139</sup>

The findings of the DHS 2016–2018 demonstrated that among women in PNG who had a live birth during the three years preceding the survey,

<sup>133</sup> Ibid

<sup>134</sup> Ibid

<sup>135</sup> Ibid

<sup>136</sup> Nojj Frank, Bardakova Lidia, Lavu Esther, Yamarak Londari, Anton Melkie, Papua New Guinea: Population Situation Analysis, UNFPA Papua New Guinea December 2023 Report

<sup>137</sup> Ibid

<sup>138</sup> Ibid

<sup>139</sup> Ibid

36 percent of deliveries had complications, including prolonged labour of more than 12 hours, which may cause an obstetric fistula. The prevalence of delivery complications has increased from 24 to 36 percent since 2006. No data on the incidence of obstetric fistula in PNG is available. Fistula prevention has two main focus areas: prevention of early pregnancy and improving access to primary healthcare and essential obstetric services. Obstetric fistula is a devastating childbirth injury with tremendous consequences for the women and girls concerned, though nevertheless often neglected.<sup>140</sup>

#### 4.5.6 Food insecurity

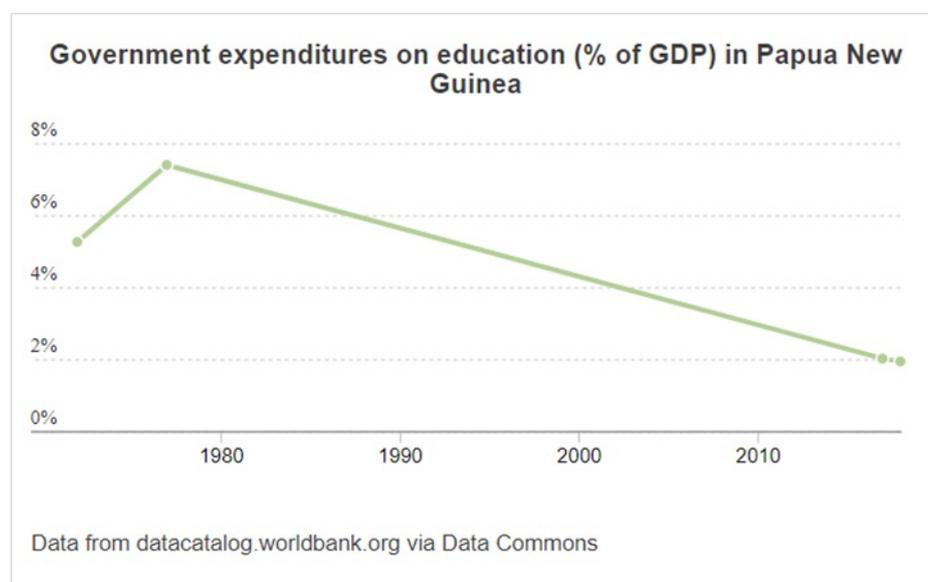
Components of the right to food, including adequacy, accessibility, and availability, are yet to be fully realized. In addition, the progress toward realizing the right remains dependent upon wealth. Rural residents are more likely to experience moderate to severe food insecurity than urban

residents (58 percent versus 52 percent). The population experiencing moderate to severe food insecurity ranges from a high of 73 percent in Western Province to a low of 35 percent in Madang Province. The proportion of the population experiencing moderate to severe food insecurity decreases as household wealth increases. For instance, 68 percent of the population in the lowest wealth quintile experienced moderate to severe food insecurity compared with only 42 percent in the highest wealth quintile.<sup>141</sup>

#### 4.5.7 Quality education

Government expenditure on education as a percentage of GDP has declined significantly. In 2018, expenditure was 1.9 percent of GDP compared with 7.4 percent in 1977, the highest level since independence. Expenditure on education as a percentage of total expenditure has also declined, from 10.7 percent in 2017 to 8.7 percent in 2018.

**FIGURE 27: GOPNG EXPENDITURE ON EDUCATION**



Educational attainment at the household level has increased since 2006. The percentage of women and men without education has declined in almost all age groups. It fell from 35 percent to 24 percent for men and 45 percent to 32 percent for women between 2006 and 2018. The percentage of the school-age population that attends primary or secondary school was higher in urban areas than in rural areas in 2018. Not all the students who should be attending school are attending. In 2018, these figures were 94 percent, 80 percent, and 37 percent for elementary, primary, and secondary school, respectively.

Education is an essential factor influencing an individual's attitudes and opportunities. Almost one in four women (23 percent) and 13 percent of men aged 15-49 have no formal education. Many respondents (35 percent of women and men) have attended but not completed some primary school. Men have generally attained higher levels of education

than women; only eight percent of women aged 15-49 have completed secondary school or attained a higher level of education compared with 11 percent of men. Residents of urban areas generally have more education than rural residents.

The urban-rural difference is pronounced at the secondary or higher levels of education. For example, 19 percent of women in urban areas have completed secondary or higher education compared with only six percent of rural women. Similarly, 26 percent of urban men completed a secondary or higher level of education, compared with 10 percent of rural men. Educational attainment also varies by wealth quintile. For example, less than one percent of women in the lowest wealth quintile have completed secondary or higher education, compared with 25 percent of women in the highest quintile.

<sup>140</sup> Ibid

<sup>141</sup> PNG Demographic and Health Survey 2016-2018

Similarly, only one percent of men in the lowest wealth quintile have completed a secondary or higher level of education, compared with 33 percent of those in the highest quintile. Two-thirds of women and 80 percent of men aged 15-49 are literate, meaning they can at least read a simple sentence. Literacy levels are higher among younger and urban respondents and increase with wealth.<sup>142</sup>

About 30 percent of girls and boys aged 6-14 have not attended school, but among older children, there was marked gender disparity: nine percent of boys aged 15-24 have not attended school compared to 13 percent of girls. Retention loss starts very early among those who attend school: 84 percent of boys and 81 percent of girls transition from Elementary 2 to primary school (Grade 3).<sup>143</sup> For girls and boys, the significant loss in transition from one year to the next occurs from Grade 8 to 9 (primary to

lower secondary), as only 63.1 percent of boys and 55.1 percent of girls transition to lower secondary.

Forty-four percent of the population attended primary or secondary school, with a 46.3 percent net admission rate (NAR) at the elementary level, 50.3 percent NAR in primary school, and 20.6 percent NAR in secondary school. All three NARs (elementary, primary, and secondary school) were higher in urban areas than in rural areas, with NARs in both primary and secondary schools being higher at higher levels of household wealth. Gender parity indices at different levels of schooling and over time show that by 2016, there was gender parity – with a slightly higher percentage of girls than boys enrolled in primary and secondary. Boys are much more likely to be in vocational training, while girls are more likely to marry early.

## TABLE 5: GENDER PARITY INDEX 2009-2016 FOR CHILDREN AND ADOLESCENTS ENROLLED IN SCHOOL OR TRAINING

NB: A gender parity index lower than 1.00 indicates a gender disparity in favour of males, with a higher proportion of males than females attending that level of schooling.

	2009	2010	2011	2012	2013	2016
<b>Elementary</b>	0.86	0.9	0.9	0.91	0.9	0.99
<b>Primary</b>	0.78	0.83	0.84	0.83	0.81	1.04
<b>Secondary</b>	0.64	0.75	0.75	0.75	0.71	1.06
<b>Vocational</b>	-	0.42	0.36	0.37	0.4	-

Source: <https://www.educationpng.gov.pg/Staff/Devinfo%20Dashboard/dashboard.html>

Several factors cause non-enrolment and low transition rates to higher levels. Public education is underfunded, especially in rural areas. Despite the official policy, subsidies have not always been paid in full or disbursed on time, forcing parents to cover fees or keep children at home. Additionally, not all students in rural areas can access schools easily, as they have to trek long distances to get to their schools or pay boarding fees. Many schools lack access to clean water, functional and gender-segregated toilets, and even classroom space. Often, their teachers lack appropriate training and teaching materials. In 2016, there was a shortage of 10,000 teachers in schools, most of whom were in rural areas.<sup>144</sup>

Children with disabilities continue to face issues with access to quality, inclusive education. Complete and accurate national figures on the number of children with disabilities in PNG and in or out of school are not readily available. According to civil society submissions to PNG's Universal Periodic Review in 2021, five of 24 provinces are engaged in disability learning.<sup>145</sup> Existing services supporting disabled children operate through only 19 inclusive education resource centres, with limited outreach and direct service capacity to schools.<sup>146</sup> The exclusion could be attributed to:

- lack of awareness of the rights of children with disabilities
- inadequate budget allocation to put the Special Education policy into operation

- lack of competent teachers with disability-inclusive education training
- difficulties with retention and transition in various educational settings from early childhood to post-secondary
- inaccessible infrastructure and materials in educational settings
- limited appropriate disability services
- lack of inclusive education curriculum and assessment practices.

The 2022 SDES found that the proportion of the five-year-old and older population who had been to school increased from 57.4 percent (60.9 percent male and 74.2 percent female) in 2011 to 77.7 percent (81.1 percent male, 74.2 percent female) in 2022. The proportion of the population (aged 6-24 years) attending school increased from 41.8 percent in 2011 and 59.6 percent in 2016-2018 to 62.7 percent (65 percent male, 60.2 percent female) in 2022. The net attendance rate for elementary, primary, and secondary schools increased from 2018 to 2022. The most significant increase is in elementary education. The net attendance rate in 2022 was 54.3 percent for elementary, 51.7 percent for primary, and 21.8 percent for secondary, compared with the 2011 statistics of 43.6 percent, 50.3 percent, and 20.6 percent, respectively. The gross attendance rate increased significantly between 2018 and 2022. The SDES found that the gross attendance rate in 2022 was 108.7 percent for elementary, 92.2 percent for primary, and 42.5 percent for secondary, compared with the DHS findings in 2018 at 93.9 percent, 79.9 percent, and 36.7 percent, respectively.

<sup>142</sup> PNG Demographic and Health Survey 2016-18

<sup>143</sup> [http://education.gov.pg/documents/PNG-COVID-19-Education-Response-and-Recovery-Plan-\(Final-Draft-04-05-2020\)](http://education.gov.pg/documents/PNG-COVID-19-Education-Response-and-Recovery-Plan-(Final-Draft-04-05-2020)).

<sup>144</sup> <https://www.rnz.co.nz/international/pacific-news/302786/teacher-shortage-in-png-hurting-rural-students>

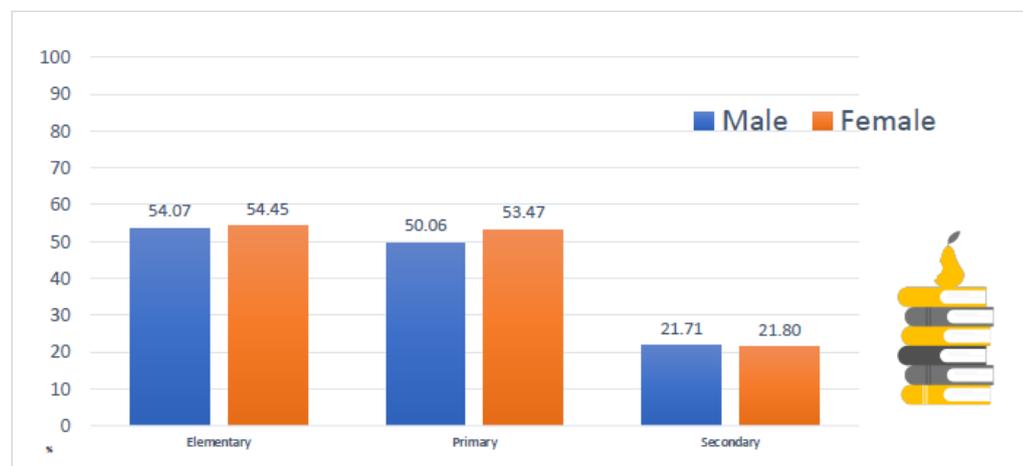
<sup>145</sup> Magna Carta Inc submission to PNG Universal Periodic Review, 2021, available in [https://www.upr-info.org/sites/default/files/documents/2021-10/2.png\\_magna\\_carta\\_inc.pdf](https://www.upr-info.org/sites/default/files/documents/2021-10/2.png_magna_carta_inc.pdf)

<sup>146</sup> [http://education.gov.pg/documents/PNG-COVID-19-Education-Response-and-Recovery-Plan-\(Final-Draft-04-05-2020\)](http://education.gov.pg/documents/PNG-COVID-19-Education-Response-and-Recovery-Plan-(Final-Draft-04-05-2020)).

Attendance is higher for females at all levels of schooling. Literacy increased significantly between 2011 and 2022. The SDES found that the 2022 literacy rate was 85.7 percent (88.0 percent male, 83.2 percent female)

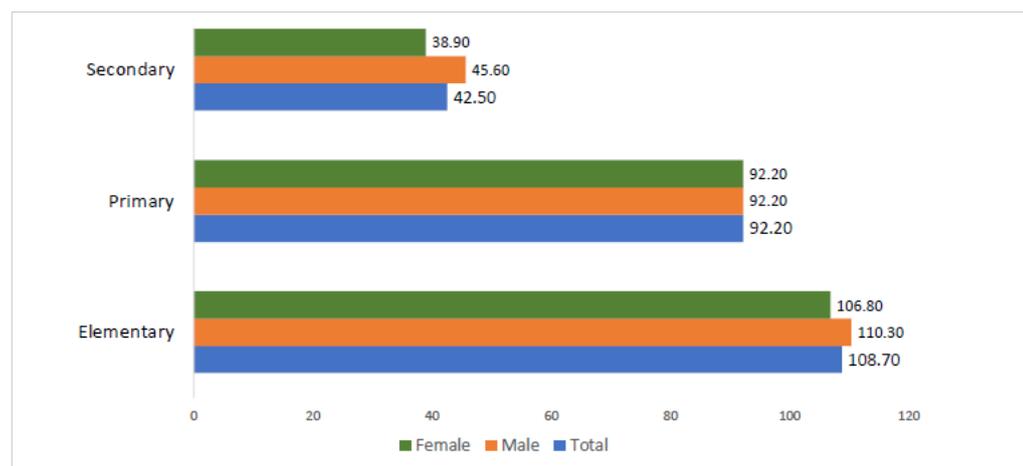
compared with 67.6 percent in 2011 (71.1 percent male, 64 percent female). On average, affordability was the main reason for not attending school. For females, getting married was the main reason for not attending school.<sup>147</sup>

**FIGURE 28: NET ATTENDANCE RATE BY SEX**



Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

**FIGURE 29: GROSS ATTENDANCE RATE FOR POPULATION 6-24 YEARS OLD, 2022**



Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

**TABLE 6: MAIN REASONS FOR NOT ATTENDING SCHOOL BY SEX**

	Both Sexes	Male	Female
No money for fees/cannot afford school fees	20.5%	22.1%	18.9%
Lost interest/refused to go to school	15.4%	17.5%	13.3%
Working/looking for work	15.0%	17.9%	12.0%
Getting married	14.4%	6.8%	22.0%
Not qualified for secondary/tertiary/(Grade 9 or 11)	13.5%	14.8%	12.1%

Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

<sup>147</sup> PNG National Statistical Office Socio-demographic and economic survey, 2022

#### 4.5.8 Gender equality and women's empowerment

Men are more likely to be employed than women in PNG. Sixty-four percent of currently married men were employed in the past 12 months (2016-2018), compared with only 36 percent of currently married women. Forty-six percent of currently married women with cash earnings decide independently how they are used. About half of women and men report making joint decisions regarding husbands' cash earnings. DHS results show that more men than women own a house (60 percent versus 49 percent) and land (65 percent versus 44 percent). More than eight in 10 currently married women participate in decision-making, either by themselves or jointly with their husbands, regarding their health care. At the same time, 70 percent decide to make major household purchases alone or jointly, and 79 percent decide to visit their family or relatives alone or jointly. Sixty-two percent participate in all three decisions, while 10 percent do not participate in any of the decisions.

The use of contraceptives is higher among women who participate in one or more household decisions. In most cases, women's participation in decision-making is positively associated with reproductive health-seeking behaviour related to antenatal care, delivery from a skilled provider, and postnatal checks.

Alarming, 70 percent of women and 72 percent of men believe that a husband is justified in beating his wife in at least one of five specified situations. The 2016-2018 DHS results show that 56 percent of women aged 15-49 in PNG have experienced physical violence since age 15, and 28 percent have experienced sexual violence. Eighteen percent of women who have ever been pregnant have experienced violence during pregnancy. Regarding spousal violence, 63 percent of ever-married women have experienced spousal physical, sexual, or emotional violence. The most common type of spousal violence is physical violence (54 percent), followed by emotional violence (51 percent). Twenty-nine percent of women have experienced spousal sexual violence.

Regarding injuries due to spousal violence, 57 percent of women who have experienced spousal physical or sexual violence have sustained injuries. Cuts, bruises, or aches are the most common injuries reported. Regarding seeking help, 35 percent of women who have ever experienced physical or sexual violence have sought help, while 13 percent have never sought help but have told someone about the violence. Thirty-nine percent of women who have experienced physical or sexual violence have not sought help or told anyone about the violence.<sup>148</sup> Women with disabilities often experience more significant negative consequences from GBV than women without disabilities.<sup>149</sup>

About eight percent of girls are married before age 15, and 27.3 percent are married before age 18.

The Department of Justice and Attorney General are working towards a Women's Health Protection Bill to give greater legal rights to GBV and sexual and reproductive health services. The Department is also working with the Constitutional Law Reform Commission to develop a Human Rights Defenders Bill.

#### 4.5.9 GBV and sorcery accusation-related violence

GBV remains at endemic levels in PNG. The special parliamentary committee established by GoPNG was the first government-level act devoted to providing a clear avenue of legal recourse for female victims of rape within marriage, and other types of GBV, through stricter enforcement of the Family Protection Act, the Family Protection Regulations, and the Amended Criminal Code Act, resulting in increased reporting of cases and severe penalties for offenders. Despite this, impunity for GBV, including rape and intimate partner violence, remains high. There is a continued need to ensure institutional strengthening, including the justice sector, in investigating and prosecuting cases, women's economic empowerment, and many other realistically required measures to combat GBV.

The challenges of family and sexual violence and all forms of domestic violence are primarily addressed through the Child Protection Act, in close liaison with the above legislation, under which substantial penalties apply for sexual offences and crimes against children and women. The National Strategy to Prevent and Respond to GBV 2016-2025 aimed to strengthen and institutionalize all initiatives to achieve a zero-tolerance policy of GBV. The National GBV Secretariat was established in 2016 as the central implementation, coordination, and monitoring point for activities by stakeholders, including development partners at all levels. Activities included services for various referral pathways, counselling, capacity-building for survivors and perpetrators, and establishing safe houses nationwide.<sup>150</sup>

Sorcery accusation-related violence (SARV) killings are a continuing, rising area of concern. Belief in sorcery (sanguma) or witchcraft is widely held in different forms across PNG, not only in remote or rural areas. Both the number of SARV incidents and the brutality of the violence have increased in recent years, and many victims of reported cases are women. Cases are understood to be significantly underreported. Available services for survivors remain significantly low, and challenges are faced in administering justice concerning alleged perpetrators, including in the investigation and prosecution of cases. As a positive development, however, in early 2022, the national parliament amended the Criminal Code Act to prescribe specific legal penalties for individuals acting in the role of "glasman" or "glasmeri," who are individuals who purport to be able to identify alleged sorcerers and charge a fee for doing so.

Research conducted in two provinces between January 2016 and October 2017 found that one-third of almost 150 recorded cases of accusations of sorcery or witchcraft resulted in violence, and of these, almost three-quarters involved torture of people accused of sorcery or witchcraft. Increasingly, SARV appears to be targeting older women, but individuals of any age and gender can be targeted, and young children, including girls, have been targeted in some cases. In some cases, SARV has been linked to intimate partner violence/domestic violence.

Individuals accused of sorcery or witchcraft are subject to interrogation, physical torture, or murder in 'payback' for harm they are thought to have perpetrated. Triggers are often related to an unexplained illness (including HIV/AIDS and COVID-19), death, or land grabbing. Violent methods include

<sup>148</sup> PNG Demographic and Health Survey 2016-2018

<sup>149</sup> Summary of Stakeholders' submissions on Papua New Guinea, A/HRC/WG.6/39/PNG/3 (17 August 2021), available in <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G21/226/01/PDF/G2122601.pdf?OpenElement>, at para. 53.

<sup>150</sup> UN 49th session of the Human Rights Council

beating, breaking bones, burning with hot metal, rape, hanging over the fire, cutting body parts slowly, including genitalia, amputation, and are often conducted in public. If death does not result from the torture process, the victim may be killed. More than one in ten victims were killed, and over one-third were permanently injured. Research indicates that women are six times more likely to experience sorcery accusations and violent retribution than men.<sup>151</sup>

Survivors of SARV are often not able to return to their villages and require extensive medical attention or lengthy legal proceedings before they can be relocated with their children to another village. Several NGOs, including Oxfam, the Tribal Foundation, and the Meri Seif Haus, along with grassroots women's human rights defenders such as the Kafe Urban Women's Settlers Association, KUP Women for Peace, Voices for Change, Southern Highlands Women Demand for Change, and Mama Helpim Mama, provide life-saving services for survivors of SARV, including shelter, medical and legal services, rehabilitation and relocation. In Southern Highlands Province, the Catholic Church operates a temporary shelter for SARV survivors with a holistic support program.

To address the problem of SARV, GoPNG, with partners, developed the SARV National Action Plan in 2015 with a focus on services (through counselling, health sector, and child protection), prevention through advocacy and communications, legal protection and prosecution, and research.

Since 2016, the GBV Secretariat has advocated for and conducted awareness-raising on issues relating to GBV, organized men's forums to highlight men's role in addressing GBV, and established GBV secretariats and committees at the provincial level. Pilot programs have been rolled out in four provinces (Morobe, Milne Bay, NCD, and East New Britain), but the initiative has not resulted in further programs.

The Department of Health, in conjunction with the Family Sexual Violence Action Committee, also established Family Support Centres in major hospitals and health centres throughout the country. These Centres respond to the medical and psychological needs of survivors by offering free essential services, including medical first aid, psychological first aid, and the provision of advice by paralegals, as well as supporting the prevention of HIV and other sexually transmitted infections (STIs), the prevention of unwanted or unintended pregnancy, and the prevention of hepatitis B and tetanus or other life-threatening medical conditions. Currently, there are 28 safe houses and a men's hub for victims of GBV in 17 provinces and 14 Family Support Centres in 13 provinces.

In 2016 and 2017, 33 human rights defenders in three NCD electorates were trained on standard operating procedures and GBV data collection. They were also equipped with response tools, such as phones, identification cards, uniforms, and manuals, to carry out their duties effectively. In addition, the Royal PNG Constabulary transformed its Family Sexual Violence Unit into a fully-fledged directorate within the Crimes Division. Its expanded role included addressing victims of domestic violence. The Unit had 33 established desks in 17 provinces, with 88 policemen and policewomen engaged in that work.<sup>152</sup> Unfortunately, many Family and Sexual Violence Units remained under-resourced.

#### 4.5.10 Water, sanitation, and hygiene

PNG suffers from issues related to water quality and safety, physical accessibility, affordability, and sufficiency – issues that reflect the wealth divide, with the wealthier having greater enjoyment of water rights, sanitation, and hygiene. The 2019 Joint Monitoring Programme reported that less than half of PNG households (41 percent) in 2017 had access to at least an essential improved drinking water source, and only 35 percent in rural areas. Nationally, 51 percent rely on surface water, which increased from 38 percent in 2000. In the wealth quintile, 90.4 percent of people have at least primary, safe drinking water compared to only 11 percent in the lowest quintile.<sup>153</sup>

There are considerable differences in access to drinking water sources across the country. For example, the proportion of households with an improved source of drinking water ranges from only 19 percent in Southern Highlands to 99 percent in the NCD. Overall, 10 percent of households use an appropriate method to make their drinking water safer, including boiling, adding bleach/chlorine, filtering, and disinfecting. Urban households are much more likely to use an appropriate water treatment method than rural households (26 percent and 9 percent, respectively).

The 2019 Joint Monitoring Programme reported that 13 percent of people in 2017 accessed at least a basic toilet, while most people (70 percent) used an unimproved toilet, usually a pit latrine. Fourteen percent were still defecating in the open, with only a one percentage point change since 2000. Rural people were most likely to openly defecate (17 percent) or use an unimproved facility (74 percent). In the 2016-2018 DHS, the Islands region had by far the highest percentage of people practising open defecation. Households in the NCD are far more likely to have an improved sanitation facility (86 percent) than those in other provinces, especially Hela (10 percent).<sup>154</sup>

Less than half of the provinces 2018 had achieved fifty percent coverage of essential water and sanitation in schools, with the northern and Highland provinces having the lowest coverage. Basic hygiene coverage in schools is below 25 percent in all provinces except East New Britain and Chimbu. A 2015 baseline survey assessing WaSH in schools, led by the National Department of Education and UNICEF, found that 41 percent and 51 percent of primary schools surveyed had only one operational toilet for girls and boys. An analysis of 2016 Education Management Information System data on WaSH in schools showed that only 10 percent of schools had soap, and 28 percent had clean, operational, and separate toilets for girls and boys, with the toilets beside each other.

Menstrual hygiene is affected by the absence of washing facilities, privacy, and unavailability of clean, absorbent materials due to limited availability or prohibitive costs. The baseline survey showed that only eight percent of primary schools promoted menstrual health management for adolescent girls, with almost 20 percent (one in five) of the girls indicating that they did not attend school during menstruation. This led to a reduction in girls attending school by 10-15 percent.

According to the Joint Monitoring Programme report, 30 percent of healthcare facilities did not have essential water services, meaning water

<sup>151</sup> PNG UNICEF research into social inclusion, 2020

<sup>152</sup> UN 49th session of the Human Rights Council

<sup>153</sup> Op cit.

<sup>154</sup> PNG Demographic and Health Survey 2016-2018

was unavailable from an improved source. Thirty-two percent had no toilets. WaSH in healthcare facilities is essential to curb infection and the spread of diseases and to provide privacy and dignity to staff and patients. Unhygienic birth deliveries leading to infections such as sepsis remain a frequent cause of neonatal and maternal mortality in PNG.

Overall, WASH responsibilities are fragmented and uncoordinated across PNG. The SOEs serve the most significant urban areas, but the rural areas tend to be underserved by their LLGs. The PNG Water, Sanitation, and Hygiene Policy 2015-2030 focuses on improved service delivery of water, sanitation, and environmental hygiene and increased access. The Policy is aligned with the government’s SDG target of 70 percent of the population accessing clean water supply and safe sanitation by 2030. The Policy also aims for 100 percent of public schools and health facilities to have water and proper sanitation.

The 2016 Water Supply and Sanitation Act aimed to strengthen the coordination of water supply and sanitation services throughout the country. It provides for planning, designing, constructing, and managing systems, including correctly disposing wastewater and sewage. Legislation has been proposed and long-pending to create a National Water, Sanitation and Hygiene Authority, with subnational offices, to manage WaSH as a high-priority development target for PNG. The WaSH Programme Management Unit under DNPM is the interim body coordinating and implementing the WASH Policy.<sup>155</sup>

A set place for hand washing exists for 57 percent of households surveyed. Soap and water, the essential hand-washing agents, were available to 33 percent of people. The availability of a place to wash hands that has soap and water varies widely, being highest among the population in Manus (83 percent) and in NCD (73 percent), as well as among people in the highest wealth quintile (73 percent).

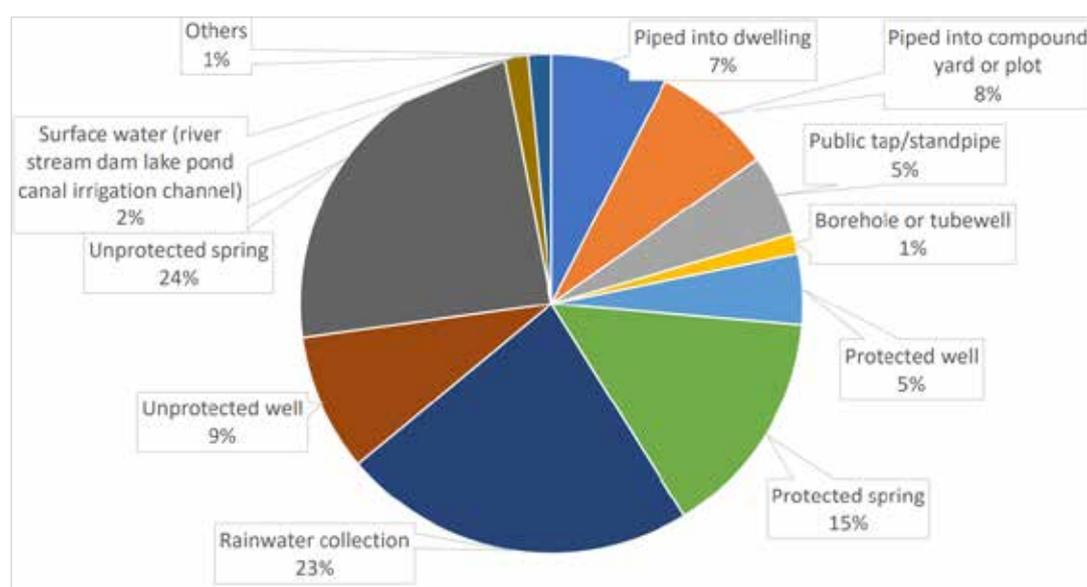
Water access, particularly regarding physical accessibility and quality/safety, is also impacted by pollution/waste management and management of extractive industries. These have been understood to contribute to

issues with the quality/safety of easily accessible water sources and are subject to inadequate regulation/enforcement of existing legal and regulatory frameworks, as described in other sections. These issues have a disproportionate impact on women, indigenous groups, individuals in rural areas, and many others who are unable to access alternative water sources physically.

Most persons in PNG in 2022 get their drinking water from unprotected springs (24.2 percent), an unimproved source, followed by rainwater collection (23 percent), an improved source, and protected springs (improved source) (14.8 percent). These water sources are an improvement from the 2016-2018 DHS findings, where the figures were 29.3 percent and 15.3 percent, respectively, for unprotected spring and rainwater and 15.2 percent for surface water. Further, 65.5 percent of households, or 66.1 percent of the population, have access to improved drinking water sources, an improvement from the 2018 figures of 45.5 percent of households, or 46.9 percent of the population. Of these households with access in 2022, only 18.5 percent had access to safely managed drinking water services (no water testing), accounting for 19.3 percent of the population.<sup>156</sup>

The 2022 SDES found that 50 percent of toilet facilities are pit latrines without slabs/open, followed by 14 percent open defecation and 13 percent pit latrines with slabs, an improvement from the 2016-18 DHS where the percentages were 52.3 percent, 16.7 percent, and 14.4 percent. The number of households and people with improved sanitation facilities improved in 2022 compared with 2018. In 2022, 32.6 percent of households, or 33.1 percent of the population, had access to improved sanitation facilities. However, only 7.6 percent of households, or 8.2 percent of the population, used safely managed sanitation services. In 2022, 35.9 percent of households had a handwashing facility such as a bucket, jog, or kettle, while another 35 percent had no handwashing facility in the dwelling or yard. Among the households with handwashing facilities, water is available in 92.2 percent, and soap is available in 70.1 percent.<sup>157</sup>

**FIGURE 30: SOURCES OF DRINKING WATER**



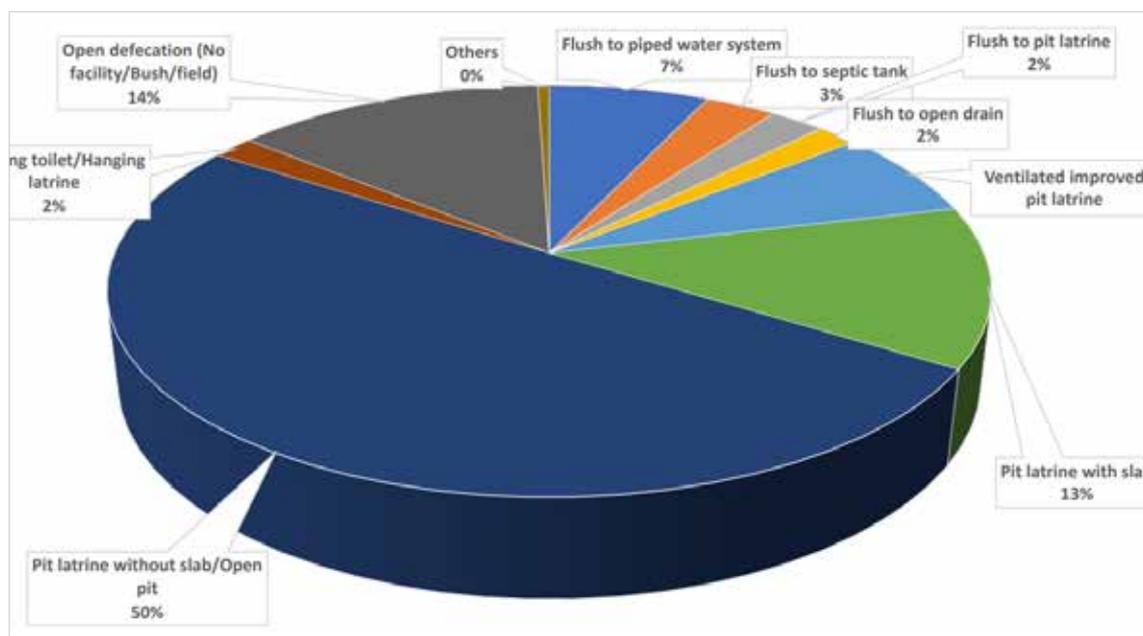
Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

<sup>155</sup> <https://www.adb.org/sites/default/files/publication/664926/making-urban-sanitation-more-inclusive-png.pdf>

<sup>156</sup> PNG National Statistical Office, Socio-demographic and Economic Survey, 2022 <https://www.nso.gov.pg/census-surveys/population-data-collection-and-assessment/socio-demographic-and-economic-survey/>

<sup>157</sup> PNG National Statistical Office, Socio-demographic and Economic Survey, 2022 <https://www.nso.gov.pg/census-surveys/population-data-collection-and-assessment/socio-demographic-and-economic-survey/>

**FIGURE 31: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPE OF TOILET FACILITIES**



Source: PNG National Statistical Office, Socio-demographic and Economic Survey, 2022

#### 4.5.11 Vulnerability to environmental shocks

PNG's rural and remote communities are vulnerable to shocks from extractive industries (including mining, oil, gas, commercial fishing, and logging), primarily where people depend on the local environment for their livelihoods. Environmental shocks include:

- land clearing, loss of farmlands and forests
- pollution of rivers, streams, and marine areas, and land and soils
- entry of toxins, including heavy metals, into the environment and food chain, causing health impacts
- decline in fish catch and loss of marine food sources
- siltation with resultant loss of farmlands and healthy aquatic systems, blocking of waterways, and changes in water flows
- flow-on effects relating to increased mobility and migration, where people are displaced and have to venture further into the field to seek livelihoods.

The remoteness of many of PNG's rural communities can create immense challenges for responding to disasters effectively, and a lack of local infrastructure and health services can have long-lasting impacts on communities following catastrophic events.<sup>158</sup> Climate change already affects the most disadvantaged and will result in many more people being 'left behind' unless actions are taken. Women and children suffer most adversely, and it was reported that "women...(are) often most vocal about dimensions of vulnerability (for example, population growth) and their links to social issues (i.e., alcoholism, domestic violence, and petty crime) that they viewed as likely to be heightened through ecosystem decline".<sup>159</sup>

## 4.6 Humanitarian-development-peace nexus

### 4.6.1 Humanitarian needs and risk analysis<sup>160</sup>

Consistent, comprehensive, and accurate historical data on people in PNG affected or displaced by humanitarian emergencies or crises and their needs, including annual new displacements, particularly in violent contexts, must be improved. The International Organization for Migration (IOM) has occasionally published event-specific Displacement Tracking Matrix reports on PNG since 2016,<sup>161</sup> and the Internal Displacement Monitoring Centre (IDMC) publishes annual displacement figures for natural disasters and conflict events.<sup>162</sup> However, information on conflict-related displacement in the provinces of Enga, Hela, and Southern Highlands shared by the International Committee of the Red Cross to the Disaster Management Team (DMT) indicates much higher numbers of displacement due to conflict and violence than is captured in either IOM's or IDMC's reporting.<sup>163</sup> We can assume considerable underreporting due to lack of access, reliable sources, or other reasons. At the same time, there is little information currently available on the duration of displacements, whether these are new, repeated, or cyclical displacements, or what the humanitarian needs are, if any, of those displaced by violence.

UN support for WaSH and the Displacement Tracking Matrix led to improved quality of life and disaster preparedness for communities in PNG. Government authorities, community focal points, local volunteers, partner NGOs, and community-based and faith-based organizations in Hela, Jiwaka, Western Highlands, Southern Highlands, Morobe, Madang, East New Britain, and AROB demonstrated improved skills and knowledge in responding to and managing emergencies and displacements following UN-led upskilling in the Displacement Tracking Matrix tool. The vital

<sup>158</sup> UNDRR, Disaster Risk Reduction in Papua New Guinea: Status Report 2019. Bangkok, Thailand, United Nations Office for Disaster Risk Reduction (UNDRR), Regional Office for Asia and the Pacific, 2019.

<sup>159</sup> McKenna, K. et al, 'Community responses to the effects of climate change in PNG'. Devpolicy Blog Dev. Policy Central, 2019, <<https://devpolicy.org/community-responses-to-the-effects-of-climate-change-in-png-20190703/>>

<sup>160</sup> The information on conflict, violence and humanitarian issues came from research done by UNDP, IOM, RCO and UNHCR

<sup>161</sup> <https://dtm.iom.int/papua-new-guinea>

<sup>162</sup> <https://www.internal-displacement.org/countries/papua-new-guinea>

<sup>163</sup> March 2022 DMT meeting: reported that an estimated 16,000 to 17,000 people (2,800 families) were currently displaced by 15 fights being monitored in Enga province, with another 4,900 people displaced by fights in neighbouring Hela province.

information collected through the tool, including the living conditions of displaced populations and the challenges in attaining durable solutions, has been used to draft PNG's Internally Displaced Persons policy document.

There are some existing resources from which we can draw a general risk profile for humanitarian needs. The UNDRR and the World Bank have recently produced excellent summaries of PNG climate and natural hazard risks and vulnerabilities.<sup>164 165</sup> There is also a database of publicly reported historical damages and losses from natural disasters compiled by the UNDP in 2018, which was lightly updated by UNDRR in 2020. However, it has significant gaps in sex and age-disaggregated data on humanitarian impacts, including deaths, injuries, missing, and impacts on livelihoods, infrastructure, crops, and social services.

We use the data published in the 2022 INFORM Risk Assessment for this risk profile. The assessment looks at the three categories of natural and human hazards: exposure, vulnerability, and coping capacity concerning disasters.<sup>166</sup> PNG, a lower-middle-income country, has a risk class of "high," the second highest risk class, and ranks 28 out of 191 globally; it ranks first among Pacific island countries and second only to Myanmar among the combined Pacific and Southeast Asian regions.<sup>167</sup> It ranks 18 globally for natural hazard risks and 65 for human-induced risks.<sup>168</sup> The country also ranks 27 in terms of socio-economic vulnerability and 77 in terms of vulnerable groups.<sup>169</sup> Finally, the country's lack of coping capacity mainly affects its overall ranking: 24 out of 191 countries lack institutional capacity, and 11 lack infrastructural capacity.<sup>170</sup> PNG ranks 36 out of 191 countries on the INFORM Risk Index for epidemic risk.<sup>171</sup> Again, it ranks first among countries in the Pacific region.

Notably, the INFORM natural hazard risk assessment excludes volcanoes. According to the Rabaul Volcanological Observatory, there are 15 active volcanoes in PNG,<sup>172</sup> five of which erupted in 2021 and two others within the last decade.<sup>173</sup> Its most active volcanoes include Bagana (which erupted in 2023), Kadovar, Langila, Manam, and Ulawun. More than a million people – 17 percent of the population – live within 30 km of an active volcano.<sup>174</sup> It also does not consider sorcery, low-intensity, and recurrent tribal conflicts, which have significant humanitarian impacts in PNG.

A series of earthquakes in Madang Province affected around 25,000 people, the most recent being a 6.7 magnitude earthquake on 7 October 2023. The earthquake caused two substantial aftershocks within an hour, affecting over 150 villages and causing widespread power outages. Humanitarian partners worked closely with provincial and national authorities to monitor the situation and with other local actors to ensure the safety of the affected communities.

Since 2013, PNG's global ranking in all three categories has remained relatively constant, with an overall gradual improving trend in coping capacity and worsening for vulnerable groups, while social-economic vulnerability has oscillated. Overall, hazards and exposure have remained unchanged.

#### 4.6.2 Vulnerability to natural and environmental disasters and associated humanitarian issues

PNG is among the most disaster-prone countries in the world. Prevalent hazards include earthquakes, cyclones, storms, volcanic eruptions, riverine and coastal flooding, coastal erosion, tsunamis, epidemics, and droughts. In addition, climate-related hazards are expected to become increasingly severe due to climate change (i.e., droughts and sea-level rise).

Climate change and environmental degradation impact many human rights, including the right to life, health, food, adequate housing, safe drinking water, preservation of culture, and more. Natural and environmental disasters disproportionately negatively impact the most vulnerable in the community, including children, women, older persons, PWD, and the rural poor.

The health, livelihoods, and food security of PNG's majority rural population are particularly vulnerable to the impact of disasters.<sup>175</sup> Rural communities that are dependent on natural resources, including subsistence farming, are often left without shelter or any form of livelihood and are highly exposed to disease and hunger. Vulnerability is further increased by the distribution and socio-economic circumstances of the population and the lack of capability for governments and communities at all levels to plan and respond to events, in addition to the implications of natural disasters for access to livelihoods, education, health, water and sanitation, among others, significant issues related to physical safety, security, and dignity, in particular GBV, after disasters are a widespread concern.

According to UNDRR's damages and losses database,<sup>176</sup> historically, earthquakes (33 percent), volcanic activity (20 percent), and tsunamis (17 percent) are the most significant causes of disaster-related deaths, followed by tropical storms (9 percent), landslides, flooding, and epidemics (3 percent each) in PNG. However, displacement for the same period indicates that more people were displaced by flooding (55 percent), storm surges (24 percent), and earthquakes (11 percent). If we look at the total number of people affected, historically, drought and frost affected the most – nearly 3.7 million people – followed by all floods and earthquakes captured in UNDRR's database.

The financial cost of insufficient attention to resilience-building and disaster risk reduction is high. If we look at total absolute losses caused by the various natural hazards that most affect PNG, in 2015 – the most recent data available from UNDRR – average annual losses by flooding ranked highest:<sup>177</sup>

Hazard	Absolute (US\$ million)
<b>Multi-Hazard</b>	169.84
<b>Flood</b>	94.23
<b>Earthquake</b>	73.59
<b>Volcano</b>	13.70
<b>Wind</b>	0.87
<b>Tsunami</b>	0.59
<b>Storm Surge</b>	0.56

<sup>164</sup> UNDRR, Disaster Risk Reduction in Papua New Guinea: Status Report 2019. Bangkok, Thailand, United Nations Office for Disaster Risk Reduction (UNDRR), Regional Office for Asia and the Pacific, 2019 <https://www.preventionweb.net/publication/disaster-risk-reduction-papua-new-guinea>

<sup>165</sup> Climate Risk Profile: Papua New Guinea (2021): The World Bank Group [https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15871-WB\\_Papua%20New%20Guinea%20Country%20Profile-WEB.pdf](https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15871-WB_Papua%20New%20Guinea%20Country%20Profile-WEB.pdf)

<sup>166</sup> <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Country-Profile/moduleId/1767/id/386/controller/Admin/action/CountryProfile>

<sup>167</sup> <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data/moduleId/1782/id/386/controller/Admin/action/Results#inline-nav-4>

<sup>168</sup> Hazard/exposure observes the probability of physical exposure associated with specific natural (earthquake; tsunami; flood; tropical cyclone; drought, and epidemics) and human-induced (conflict intensity projected conflict intensity) hazards.

<sup>169</sup> Vulnerability looks at socio-economic vulnerability (development/deprivation; inequality, and aid dependency) and vulnerable groups (uprooted people; people with health conditions; children under 5; recent shocks, and food insecurity).

<sup>170</sup> Coping capacity looks at governmental institutions (disaster risk reduction/governance) and infrastructure (communications; physical infrastructure, and health care systems).

<sup>171</sup> <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data/moduleId/1782/id/386/controller/Admin/action/Results#inline-nav-4>

<sup>172</sup> [https://www.preventionweb.net/files/workspace/37131\\_candidateinformation%5B8%5D.pdf](https://www.preventionweb.net/files/workspace/37131_candidateinformation%5B8%5D.pdf)

<sup>173</sup> [https://volcano.si.edu/volcanolist\\_countries.cfm?country=Papua%20New%20Guinea](https://volcano.si.edu/volcanolist_countries.cfm?country=Papua%20New%20Guinea)

<sup>174</sup> Op cit UNDRR (2019)

<sup>175</sup> UNDRR (2019).

<sup>176</sup> [https://www.desinventar.net/Desinventar/profiltab.jsp?bookmark=1&countrycode=pac&maxhits=100&lang=EN&logic=AND&sortby=0&\\_level0=PNG](https://www.desinventar.net/Desinventar/profiltab.jsp?bookmark=1&countrycode=pac&maxhits=100&lang=EN&logic=AND&sortby=0&_level0=PNG)

<sup>177</sup> UNISDR (GAR) (<https://www.preventionweb.net/english/hyogo/gar/2015/en/home/>)

Probable maximum losses (US\$ million) for the mean return period (in years) are as follows:

Hazard	20 yrs	50 yrs
Earthquake	212	380
Wind	6	15
Storm Surge	2	13
Tsunami	1	3

**FIGURE 32: HAZARDS THAT REQUIRE ADAPTIVE MEASURES**

Hazard	Risk Exposure
<p><b>Coastal Flooding</b></p> 	<ul style="list-style-type: none"> <li>Climate change will exacerbate the issue due to rising sea levels and occurrence of coastal storms</li> <li>Damages infrastructure</li> <li>Affects ~6,000 and displaces ~400, several deaths on an annual basis</li> </ul>
<p><b>Inland Flooding</b></p> 	<ul style="list-style-type: none"> <li>Occurs multiple times per year</li> <li>Damages buildings and infrastructure</li> <li>Affects ~26,000 annually, including the displacement of ~8,000 people and several deaths.</li> </ul>
<p><b>Land Slides</b></p> 	<ul style="list-style-type: none"> <li>Affects 500-600 and kills several people in remote, mountainous areas</li> <li>Damages infrastructure, particularly roads, causing transport issues</li> </ul>
<p><b>Malaria</b></p> 	<ul style="list-style-type: none"> <li>Already affects half of the population, with climate change impacting ~200k more in the Highlands as conditions become more tolerable for the disease</li> <li>Highlands cases are becoming more severe</li> </ul>
<p><b>Agricultural yield loss</b></p> 	<ul style="list-style-type: none"> <li>3 million people depend on climate-sensitive crops</li> <li>Climate change may reduce yields: adaptation measures are needed</li> </ul>
<p><b>Coral reef decay</b></p> 	<ul style="list-style-type: none"> <li>70,000 people earn a living from reefs</li> <li>Bleaching events and decay will reduce the livelihood and subsistence opportunities</li> </ul>

Source: Dartmouth Flooding Database; EM-DAT; Reliefweb.int; press clippings; academic journals; Reefbase; WHO; PNAS; World Bank; FAO; IMF; WRI; TEEB; ANU; Internet research; interviews; Adaptation technical working group.

Recurrent food insecurity and lack of access to clean water across most of PNG results in malnutrition and increased risk of diseases. They also exacerbate high violence rates against women and girls, reducing their access to support. Coupled with inconsistent and weak investment in disaster management and risk reduction, national and provincial governments are poorly positioned to adequately respond to a national emergency.

The humanitarian consequences of natural disasters and human-caused crises in PNG are exacerbated by pre-existing development-related conditions that increase the impact of even minor events and have protracted effects, including displacement, for individuals, households, and communities already struggling to meet basic needs, with limited access to nutritious food sources, clean water, primary education, health and social services, safety, and security.

Women, children, the elderly, PWD, and other vulnerable persons are more at risk as a consequence of more limited coping capacity stemming from social marginalization, lack of access, lower education, less likelihood of stable income, and many other factors leading to the erosion of resilience to recover from crises. Local populations affected by any crisis in PNG would first look to their family, relatives, neighbours, and the diaspora for immediate assistance, followed by political leaders and the local church they are affiliated with, or which provides social and economic support services in their community.

The immediate needs of the displaced population will likely be food, health, protection, shelter, and WaSH. These needs would be higher in urban centres and peri-urban communities, where populations are concentrated and where displacement in evacuation sites is likely higher. With a prolonged displacement, education, nutrition, livelihoods, and food security will also become issues. Over time, people living in unaffected rural areas may move to evacuation sites in urban areas for relief goods and services.

Land and property rights and access to the resources on them remain among the most common reasons for outbreaks of violence in PNG. As discussed in previous sections, due to inequities and issues with consultation in resources management and governance, among other issues, violence has resulted and annually led to thousands of affected and displaced persons with humanitarian needs.

Investment in disaster planning, response, and recovery is primarily funded by external development assistance. UNDP and other development partners continue to fund activities to strengthen disaster prevention, response, and recovery, including expanding early warning systems and local area preparedness, response, and recovery. The investment is coordinated through the National Disaster Centre, which requires additional capacity and capability building. The critical issue is the lack of capacity for sustained implementation at the national, provincial, and local levels and more excellent status and authority across government.

Identified priorities include:

- Expanding early warning systems

- Systematic data collection, analysis, and management (including appropriately disaggregated data) required for risk analyses, situational assessments, projection of future scenarios, and planning for effective disaster risk reduction and response measures
- Further localization to increase the capacity of local actors and operators in disaster preparedness and recovery
- Improving the ability of local communities to effectively manage and lead response and recovery through resilience and capacity building
- Improving and reinforcing disaster finance, including investment in increasing community resilience, poverty reduction, and environmental protection, responding to mechanisms for alleviating loss of livelihoods, and addressing shelter and access to safe water/sanitation in the aftermath of disaster events.

#### 4.6.3 Health and socio-economic Indicators

PNG has a weak health system and faces an ageing, health-challenged workforce. The country suffers from a critical shortage of human resources for health. Recent estimates of health worker densities reflect 0.5 physicians per 10,000 population and 5.3 nurses per 10,000 population.<sup>178</sup> These problems are prominent in the provinces and remote areas because of rugged terrain and risky conditions. The health workforce also lacks midwives and community health workers.

Less than half of households (46 percent) have access to an improved source of drinking water, with significant differences between households in urban (83 percent) and rural (42 percent) areas. In addition, just 29 percent of the households have improved access to safe sanitation; reportedly, 33 percent of people wash their hands with soap.<sup>179</sup>

#### 4.6.4 Conflict/violence

The Highland provinces are most at risk for violence that would result in displaced and affected populations with humanitarian needs. Hela, Southern Highlands, and Enga provinces are considered very high risk based on historical precedence. The remaining Highlands provinces – Eastern Highlands, Western Highlands, Chimbu, and Jiwaka – are considered high risk. Outside the Highlands region, parts of East Sepik, Madang, and Morobe provinces in the Momase region, Oro and Milne Bay urban centres in the Southern region, and West New Britain in the New Guinea Islands region are also considered at risk for violence.

The emergence and re-emergence of violence is mainly unpredictable, can occur with little warning, and rapidly escalate. Over the last two years, the security landscape has been shaped by crime in urban centres and clashes among tribes and clans, particularly in the Highlands region.<sup>180</sup> There has also been an increasing influx of high-powered small arms<sup>181</sup> originating from numerous sources, including the security forces circulating amongst fragile, combative communities in the Highlands and other regions, which has sparked widespread instability.<sup>182</sup>

In most provinces, inter-communal violence is driven by a practice of retribution, which, for women and girls, often manifests as sexual violence. There is a high correlation between alcohol misuse and intimate partner

<sup>178</sup> Information from PNG WHO health emergency officer, 2019

<sup>179</sup> Information provided by World Vision WASH cluster coordinator, 2020

<sup>180</sup> UNDSS reports

<sup>181</sup> Defined as revolvers and self-loading pistols, rifles and carbines, assault rifles, sub-machine guns, and light machine guns.

<sup>182</sup> Alpers, P., Gun-Running In Papua New Guinea: From Arrows to Assault Weapons in the Southern Highlands, 2005

violence. The interruption of livelihoods from protracted events such as the COVID-19 pandemic, conflict, and violence further increases pressure on families and, thus, the risk of intimate partner violence for women and girls inside the home, along with other negative coping strategies. The interruption of education will likely increase girls' risk of early pregnancy and linked to this, child, early and/or forced marriage. Some customary conflict resolution practices involve child, early, and forced marriage, which is of concern, especially in the Highlands. As elsewhere, crisis and displacement will likely increase the risk of trafficking, sexual exploitation, and abuse, especially for women and girls.

In response to concerns about gun violence, in the May parliamentary sitting, Prime Minister Marape tabled the Firearms Amendment Bill 2022, which was unanimously supported by all MPs. Under the new legislation, those found to be in unlawful possession or manufacturing firearms now face a maximum penalty of life imprisonment. However, it is uncertain how much of a difference this Act will make, mainly when political leaders can influence and direct the nation's security forces and direct them. Legislation passed in 2018 introducing penalties for illegal or misuse of legal weapons arguably did little to curb gun violence. It is believed that there are over 50,000 illegal firearms in PNG, either manufactured, smuggled, or traded by gangs or tribal groups.<sup>183</sup>

#### 4.6.5 Cross-border issues

In the past three decades, the country has seen violent progress from using sticks, stones, arrows, spears, and knives to munitions, including automated

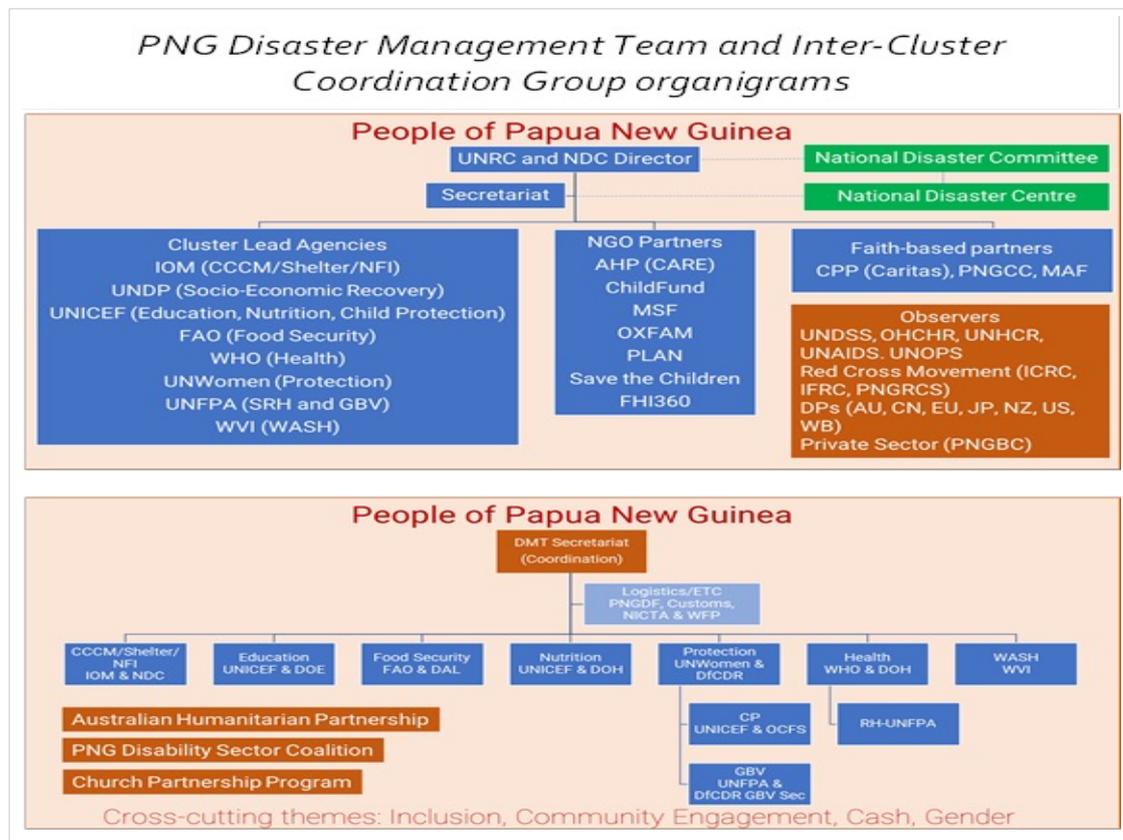
weapons. The illicit trade of marijuana and other drugs for weapons has increased along the porous border with Indonesia, in particular.

There have been reports of Malaysian and Chinese logging companies and foreign business people arranging for foreign women – from countries such as China, Indonesia, the Philippines, Malaysia, and Thailand – to enter PNG with fraudulent business or tourist visas voluntarily. Following their arrival, many of these women are turned over to traffickers for transport to fisheries, entertainment sites, and mining and logging camps, where they are exploited and forced into domestic servitude and sex work, which is associated with considerable health and safety concerns. In addition, Chinese, Malaysian, and local men are reportedly subjected to forced labour at logging camps and commercial mines, with some coerced into working for indefinite periods due to debt bondage schemes.<sup>184</sup>

PNG ministers and authorities have commented on the high incidence of criminal activities across the land border between PNG and Indonesia. The Solomon Islands' unmonitored border with Bougainville also enables relatively free movement of goods and people by small vessels, making it susceptible to the trafficking of illegal commodities and facilitating the development and maintenance of illicit markets. Significant reporting of small arms trade between Bougainville and the Solomon Islands has occurred. Criminal cases in recent years indicate that large concealments of methamphetamine have been shipped from PNG into Australia.

#### 4.6.6 PNG Disaster Management Team

**FIGURE 33: PNG DISASTER MANAGEMENT TEAM (DMT)**



<sup>183</sup> [https://devpolicy.org/too-little-too-late-securing-pngs-2022-national-election-20220513/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=too-little-too-late-securing-pngs-2022-national-election-20220513](https://devpolicy.org/too-little-too-late-securing-pngs-2022-national-election-20220513/?utm_source=rss&utm_medium=rss&utm_campaign=too-little-too-late-securing-pngs-2022-national-election-20220513)  
<sup>184</sup> United Nations Office for Drugs and Crime and Pacific Island Forum Secretariat (2016)- Transnational Organised Crime in the Pacific : A Threat Assessment, UNODC, September 2016 2016.09.16\_TOCTA\_Pacific web.pdf (un.org)

Nearly every year since 2016, in response to requests from the national government, the DMT has mobilized global resources for at least one disaster or crisis. This mobilization of global resources began with 2016's El Niño-related drought and food insecurity and has since continued for mobilization for the Kadovar volcanic eruption, the Highlands earthquake displacement and polio outbreak in 2018; early action planning for El Niño-related drought; Ulawun volcanic eruption displacement and a small refugee emergency in 2019; COVID-19 in 2020 (ongoing); and king tide storm surges in 2021.

In 2021, the DMT monitored at least 36 other small-scale emergencies, including La Niña, African Swine Fever, Fall Army Worm infestation, movement of West Papuan asylum seekers, local flooding, king tide and storm surges, landslides, earthquakes, minor volcanic eruptions, and conflict-related displacement.

#### 4.6.7 Bougainville conflict analysis

Over the past twelve months, the situation in Bougainville has been incredibly dynamic, with the start of the post-referendum consultation process between the National Government and the Autonomous Bougainville Government (ABG) on the future political status of the ARoB.

In December 2019, the successful and peaceful completion of the referendum saw 97.7 percent of voters opting for independence, with an 85 percent voter turnout. Like the referendum, one of the three pillars of the Bougainville Peace Agreement (BPA) was non-binding. The future status of Bougainville will be determined through consultation between the two governments, with the outcome of such consultation to be ratified by the National Parliament, which has the final decision-making authority.

The two governments met formally on three occasions in 2021 (May, July, and December). The United Nations Resident Coordinator is the chairperson of the post-referendum consultation, and former Prime Minister of Ireland Bertie Ahern, who had been supporting the process remotely, was appointed by the two parties as international moderator.

In the meantime, the ABG has progressed through internal consultations concerning developing a constitution for an independent state. As a result, the Bougainville Executive Council has appointed a Bougainville Constitutional Planning Commission. Its members have been inducted, and commissioners are expected to start convening public consultations across Bougainville soon.

Since the referendum, Bougainville has progressed its economic empowerment agenda, aiming to achieve fiscal self-reliance. Ishmael Toroama, who replaced John Momis as President of the ARoB in September 2020 after the fourth presidential and parliamentary elections in the region, is leading the process of engaging the landowners of Panguna Mine, one of the largest copper and gold open-pit mines in the world, to

sustain Bougainville's aspirations to economic independence. It has been assessed that mine issues/resource management contributed to the armed conflict. Also, women were primarily excluded from management pre-conflict. However, women have recently become more involved.<sup>185</sup>

With the independence vote and the start of the post-referendum consultation process, Bougainville is an environment where complex challenges remain and may contribute to additional risks to sustaining peace. The post-referendum period will ultimately determine Bougainville's political future, requiring an aware and engaged population capable of making well-informed decisions.

The UN's Conflict Analysis and the Lessons Learned report broadly identified the following key risks to peace going forward, which are very much in line with the trends identified by PaCSIA and the Perception survey:<sup>186</sup>

1. Post-Referendum Process: that is, the legitimacy of the consulting group by the population; the management of information; awareness of the process/progress; and the importance of inclusion, with a broad spectrum of meaningful participation across Bougainville's society.
2. Outlier groups: two large outlier groups remain in Kon'hou and Tonu (South Bougainville), and both are crucial issues preventing Bougainville from moving forward in a united manner. Although this is not a priority for ABG, it will require accompaniment and support from the international community.
3. Influence of resource extraction and sustainable livelihoods for families: Bougainville will remain constrained without livelihood opportunities for most people. The 2018 PDA review workshop also identified this. There remains a strong demand for investment in the non-mining sector, where most Bougainvilleans get their livelihood, to develop the region's weak economic base.
4. Loss of institutional memory: turnover rates of sitting MPs in PNG elections are high, above 50 percent. The 2022 General Elections are not expected to break this trend. Turnover could lead to a loss of knowledge and momentum during the post-referendum periods, leading to a build-up in community frustration. The BPA and the post-referendum consultation process can help to contribute to this memory loss.
5. Communal violence and social cohesion: the lack of awareness and understanding of the BPA/post-referendum process due to illiteracy is a significant driver of negative mentalities and feelings of disconnection. The two governments have tried to reach populations without formal education and fully sensitize them to the issues. Protection and human rights monitoring during the post-referendum process is essential to maintaining social stability.

<sup>185</sup> <https://www.ndi.org/sites/default/files/Women%27s%20Inclusion%20in%20the%20Post-Referendum%20Consultations%20between%20the%20National%20Government%20of%20Papua%20New%20Guinea%20and%20the%20Autonomous%20Bougainville%20Government.pdf>

<sup>186</sup> This report was informed by the Peace and Development Analysis (PDA) 2014, with various inter-governmental fora (such as the UN-facilitated review workshop of the PDA 2018) and a UN-facilitated workshop on implementing the Peacebuilding Fund Project, 'Sustaining Peace in Bougainville' (2020), helping this analysis' findings. This desk review also benefited from findings of the 2021 Progress Dialogues conducted by Peace and Conflict Studies Australia (PaCSIA) and the "Perception Survey of the Bougainvillean Population Under Post-Referendum Support and Sustaining Peace and in Bougainville in Papua New Guinea", commissioned by the UNDP.

**TABLE 7: RISK ANALYSIS FOR BOUGAINVILLE**

Main Risks	Likelihood of occurrence (high, medium, low)	The severity of risk impact (high, medium, low)	Mitigating Strategy
Lack of will to progress BPA and the post-referendum process because of shifting government priorities and high turnover of MPs in the National Parliament	Medium	High	A regular risk assessment conducted by the UN (PDA, LO) and engagement with both governments on critical activities that require progression;
Lack of trust between GoPNG and ABG at political, administrative, and financial levels may affect project outcomes.	Medium	High	Hold regular meetings with heads of administration (Secretary, Department of Prime Minister and NEC, and ABG Chief Secretary) to share risk analysis on bottlenecks to project implementation.
Limited access to quality information/ informed discourse at the community level	Medium	High	Strengthened engagement throughout PNG, including Bougainville; Reinforced dialogues at the community level through PaCSIA's network of facilitators.
UN faces allegations of partiality or being blamed for delays in implementing the post-referendum process.	Medium	Medium	The Peace and Development Adviser/Liaison Officer will conduct regular political analyses, engaging with both governments to manage public expectations over the UN's role.
Due to entrenched, unequal social norms and a lack of substantive engagement with women and young people	Medium	High	A specific program to enhance women and youth engagement is to be designed.
Increase incidents of violence during the implementation of the project	Medium	High	Use existing early warning/early response systems to detect and mitigate violence.
Capacity limitation of partners to engage, including the various ABG departments that may affect program implementation	Medium	Medium	Capacity assessment and reinforcement of implementing partners to support projects. Inclusion and engagement of partners in project activities to build their capacity.
Projects are not able to attract and retain qualified staff	Medium	High	Consider detailed assignments/ consultancies, including expediting salary scale surveys for national staff.
Lack of will and institutional memory to progress BPA, including the post-referendum process due to change in leadership (both political and bureaucratic levels)	High	High	Being flexible and responsive to these changes quickly builds relationships and provides briefings with new leaders.
Safety of all project staff, including non-Bougainvilleans	Low	High	Build internal security measures, then orient staff on these measures.
COVID-19	Low	Medium	COVID-19 presents an external threat to the post-referendum consultation process and the implementation of UN programs. Therefore, adhere to the "Niupela Plasin" protocols.

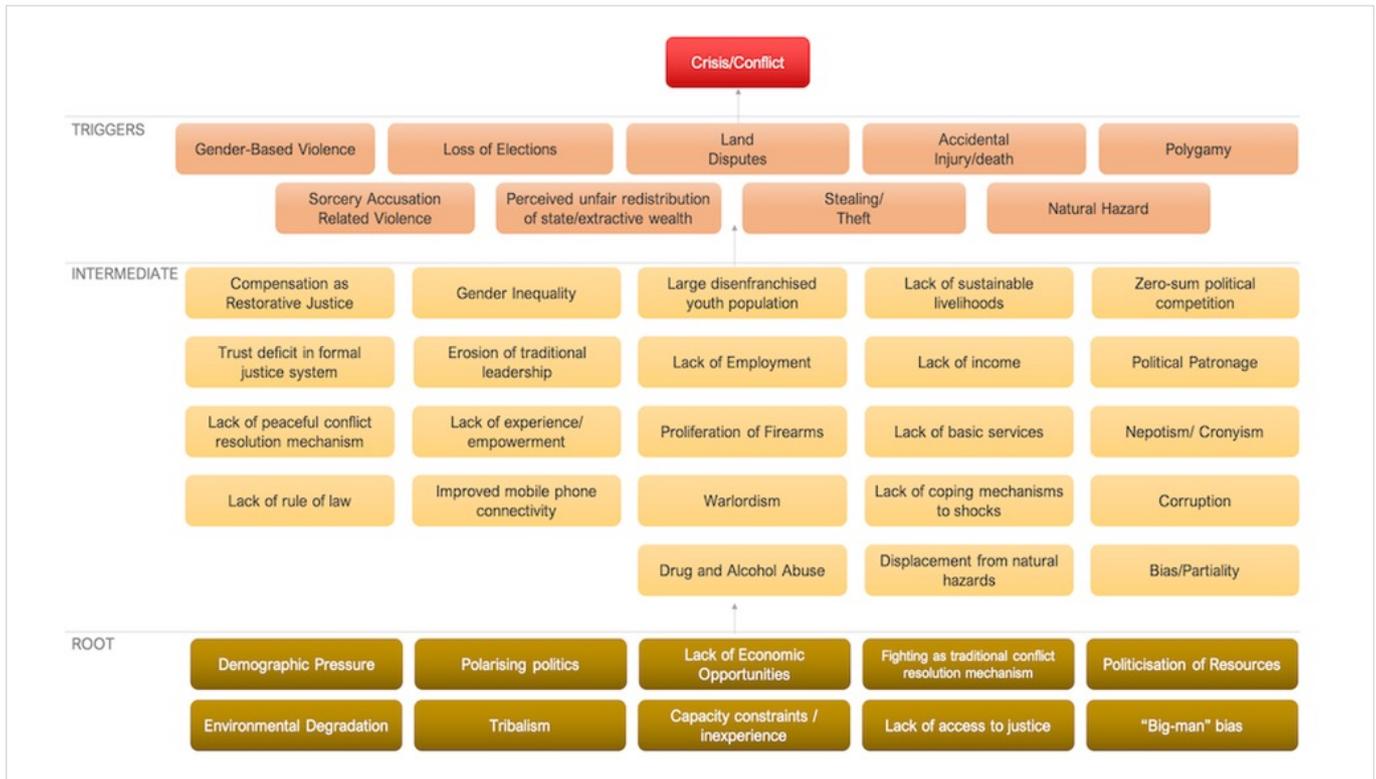
#### 4.6.8 Conflict analysis for the Highlands

Both Hela and Southern Highlands Provinces experience violent internecine conflicts of varying scales. These conflicts are underpinned by similar causal factors ranging from intense demographic pressures to a lack of economic opportunities, rent-seeking behaviour, widespread proliferation of firearms, and lack of access to an effective formal justice system. While service availability and weak public institutions can fuel grievances, these issues also permit violence to continue within an authority vacuum.

The observed trends suggest that these conflicts can manifest differently in each province. For instance, inter-group conflict in Southern Highlands can often be attributed to the competition for power, i.e., the goal of political influence and provincial power. However, in Hela, inter-group conflicts are often crudely characterized as “tribal” conflicts, linked to intensified resource competition also connected with women and pigs.

Since 2014, when the PNG LNG project has been operational (primarily in Hela and where the pipeline to the Papua Gulf traverses Southern Highlands), incidents of violent conflict have arisen along the project impact areas. This is owed to the perceived lack of/unequal distribution of benefits from the gas project (such as royalties, equity, and development grants) or disputed land ownership of project-impacted locations. However, conflicts directly attributable to benefits distribution/sharing remain predominantly localized in project impact areas. They do not account for conflicts beyond these locations triggered by other conflict factors. Nevertheless, it is worth considering the implications (if any) of the close association between extractive companies and agents of the PNG state, operating against a backdrop of the persistent challenge of widespread instability and communal divisiveness observed in both provinces. The complex relationship between root and intermediate causal factors (as well as the triggers of conflicts in the Highlands) are summarised below.

**FIGURE 34: SUMMARY OF CONFLICT TRIGGERS AND CAUSES: CONTEXT ANALYSIS OF THE PROVINCES OF SOUTHERN HIGHLANDS AND HELA**



**TABLE 8: RISK ANALYSIS FOR THE HIGHLANDS**

Main Risks	Likelihood of occurrence (high, medium, low)	The severity of risk impact (high, medium, low)	Mitigating Strategy
Occurrence of significant man-made or natural hazards affecting either/both provinces leads to negative humanitarian impact; increase in accusations of sorcery/witchcraft and associated violence, including delay in implementing planned PBF activities.	High	High	Seek the support of donors to re-program or review the implementation timeline of activities; Reprogramming of planned activities to respond to immediate humanitarian needs; Proactive community engagement campaign to explain causes of hazards and impacts.
Increase in violence due to unresolved local political tensions or escalation in unresolved issues around extractive royalties.	Medium	High	Interventions to have built-in capability to pivot, re-program, or absorb delays; Comprehensive pre-crisis safety and security plan to be developed, exercised, and maintained; Establishment of local early warning networks; Close coordination with local security forces.
Loss of national and subnational government support due to evolving priorities or changes in government	Low	High	Establish and actively maintain broad-based support from political stakeholders; Formalizing government support through integration into the UN's joint annual workplan; Encourage government co-financing of complementary activities.
Loss of community trust and community access	High	High	Implement planned community engagement activities, drawing broad-based support from influential stakeholders.
Neutrality and impartiality are perceived to be compromised	High	High	Deliberate program to initiate all UN personnel deployed in the Highlands on UN's values and expected appropriate behaviour; All UN personnel are to sign the code of conduct individually.
Attempts by local stakeholders to inappropriately influence program implementation	Medium	High	Maintain appropriate checks and balances in program implementation; Communicate that the UN operates strictly principled, neutral, and impartially (under mutually agreed criteria based on evidence).
Activities implemented to urgently demonstrate results are not adequately carried out, leaving the most vulnerable groups in beneficiary targeting	Medium	High	Project design, beneficiary selection, and implementation principles to guide work planning; Monitor risk and oversight by the programme steering committee.
Women and youth experience backlash (e.g., violence, community exclusion) from men and the community at large due to involvement in empowerment activities	Medium	Medium	Empowerment activities to be implemented in an inclusive, well-paced manner and sensitive to community acceptance; Communicate to communities that empowerment is not a zero-sum but a positive-sum exercise.
Expectations for cash compensation from participants implementing project activities (e.g., community mobilizers due to past experiences during the humanitarian response phase)	Medium	Medium	Awareness activities are needed to ensure a better understanding of the terms of participation in the project's activities and to manage expectations.

# 5. Human Rights and Vulnerable Populations

This section examines the impact of the PNG development context on vulnerable populations. The 2023 UNSDCF consultations identified the twelve categories of vulnerable populations within PNG in 2023, outlined in the diagram below.

**FIGURE 35: MOST VULNERABLE POPULATIONS IN PNG, 2023**



## 5.1 Asylum seekers and refugees

Since the 1960s, due to heightened tensions between the Indonesian authorities and the West Papuan separatist movement, West Papuans have been forced to flee, with a significant influx of 15,000 refugees into PNG in the 1980s. GoPNG established a refugee settlement site known as lowara (or East Arwin Relocation Camp) in Western Province, the largest and least developed province in PNG. Significant hardships are confronted by some 2,500 West Papuan refugees who reside at lowara, including tensions with local landowners, road access issues, WaSH concerns, limited livelihood opportunities, challenges with accessing justice mechanisms, and food security concerns.<sup>187</sup> Despite these challenges, West Papuan refugees are required to relocate to lowara if they wish to obtain Government assistance.

In terms of recent developments, since 2018, Indonesian forces have been reinforced in the Papua and West Papua provinces of Indonesia, as West Papuan separatist groups have become more coordinated and targeted in their attacks. In late 2019, 197 asylum-seekers arrived in Western Province and relocated in January 2020 to a temporary site. After delays, gaps in the provision of food rations, and denial of freedom of movement, the asylum-seekers were relocated to lowara in July 2020.

In 2021, as the conflict in Indonesia intensified further,<sup>188</sup> mass displacement (mainly internal) occurred for West Papuans caught in the middle of the conflict. On 13 October 2021, 106 West Papuans arrived at the Star Mountains, Sandaun Province, where they remained in a dire humanitarian situation without government support. There were reports that around 1,000 West Papuan civilians were hiding in the bush along the PNG side of the border to evade being targeted by the Indonesian authorities. In November 2021, 27 asylum seekers arrived near Vanimo, Sandaun Province. A significant proportion of humanitarian assistance has been provided by the host communities, faith-based organizations, and the UN, with limited coordination or response from the GoPNG.

In the coming years, the likelihood of displacement movements into PNG from Indonesia is expected (in the hundreds to thousands), with an ongoing challenge being the need for enhanced coordination and a reliable humanitarian response despite the small numbers dispersed along the border. This is particularly important concerning the remote border locations, such as the Star Mountains, which have significant logistical and security challenges. This means that access and the provision of core relief items and the ability to relocate asylum seekers away from the border are challenging to secure.

<sup>187</sup> Other challenges include road access issues, seasonal drought, flooding, food insecurity, inadequate access to clean water, lack of education and economic opportunities, poor living standards, malnutrition, and health concerns relating to waterborne diseases, drug resistant tuberculosis and malaria.

<sup>188</sup> After separatists assassinated the head of Indonesia's intelligence agency on 25 April 2021, the Indonesian government designated West Papuan separatists as "terrorists", deploying thousands of troops to remote parts of Papua and West Papua provinces. See Richard C. Paddock and Mukita Suhartono "Indonesian General Is Killed in Rebel Ambush, Sparking Fears of Retaliation" New York Times, 27 April 2021 <https://www.nytimes.com/2021/04/27/world/asia/indonesia-general-papua.html> (paywall).

## 5.2 Children

The child protection system in PNG suffers from limited financial and human resource capacity. Over the last five years, PNG has made significant progress, strengthening the foundation for a national child protection system by improving the legal and policy framework.

The Department for Community Development and Religion (DfCDR) is the lead national agency and anchor for family and children's well-being. It received a funding allocation for the National GBV Secretariat for the first time in the 2022 national budget. The Royal PNG Constabulary, including their Family and Sexual Violence Units, are also a part of the child protection referral system. Together, these government entities access a Primero joint database system for case management; in 2022, this was still in the early stages of use.

Although institutional mechanisms at the sub-national level remain very limited, the National Office of Child and Family Services established the first provincial Council in Enga in 2021, in line with the provisions of the Lukautim Pikinini Act of 2015 to protect and promote the rights of children regardless of race, nationality, religion, sex, ability or disability.<sup>189</sup>

The Juvenile Justice Act and its regulations, the Lukautim Pikinini Act and its regulations, together with other enabling legislation, and the National Juvenile Justice Plan 2018-2022/2023 and Child Protection Policy 2017-2027, provide the framework for promoting the rights and well-being of children in the justice system of PNG, as well as the protection of children in general. The Juvenile Justice Act 2014 states that the age of criminal responsibility begins at ten years of age. This determination falls below the international standard of 14 years. However, during the recent Universal Periodic Review, GoPNG indicated its willingness to amend the law and policy to raise the age of criminal responsibility to 14 years. In 2019, the Committee on the Rights of the Child issued a General Comment on Children's Rights in the Justice System that, among other things, promotes critical strategies for reducing the especially harmful effects to children of contact with the criminal justice system.

The Convention on the Rights of the Child enshrined the right to identity. The PNG Civil and Identity Registry<sup>190</sup> is mandated and empowered by the Civil Registration Act 1963, Amended 2014, to record and maintain registers of births, civil marriages, adoptions, civil divorces, legitimation, and deaths. There is no obligation on the Provincial Registrars to ensure that all births are registered, except in compulsory registration areas or 'prescribed premises.' There is no explicit requirement for birth registration for non-nationals.

The Adoption Law is outdated (1968), and many gaps exist. There is no designated competent authority to oversee the adoption system and processes. There are no detailed standards of care for different forms of care, such as guardianship, foster care, and adoption.

In PNG, detailed guidance and tools for evaluating alternative care providers do not currently exist. In addition, there is no mechanism for legal complaints regarding children in care and no system for assessing prospective adopters.

PNG has ratified the ILO Minimum Age Convention, 1973 (No. 138), and the Worst Forms of Child Labour Convention, 1999 (No. 182), which provided the framework of action to abolish the worst forms of child labour and ensure that special programs were introduced for children who were at a heightened risk of exploitation. However, gaps in the framework exist. Laws and regulations that meet international standards include Article 103 of the Employment Act, which stipulates the minimum age (16) for work; Articles 23 and 43 of the Constitution of the Independent State of Papua New Guinea; and Section 208 of the Criminal Code that prohibits forced labour; and Section 30 of the Defence Act that establishes a minimum age for voluntary state military recruitment.

GoPNG also established the National Action Plan to Eliminate Child Labour 2017–2020 and the Decent Work Country Programme 2018–2022 to commit to protecting human dignity and working conditions. However, due to the lack of substantive data, the measure of progress in implementing those policies remains unclear. A review of the Employment Act and the Informal Sector Control Management Act is underway to explicitly address all forms of child labour.<sup>191</sup>

Children in PNG are vulnerable to some of the worst forms of child labour, including dangerous tasks in mining. Some children from rural areas live with relatives or "host" families in cities, where they are coerced to carry out domestic work to pay off family debts.

PNG is also one Pacific Island nation where local and foreign women and children are subjected to trafficking for sexual exploitation. In the context of indications of child sex work increasing in PNG, the U.S. Department of State recently reported that around 19 percent of the country's labour market is comprised of child workers, including some who are subjected to child sex work and forced labour.<sup>192</sup> PNG is on the Tier 2 Watchlist on the US TIP (Trafficking in Persons) report, which states that approximately 30 percent of PNG sex trafficking victims are children under the age of 18, with some as young as ten years old. An ILO study<sup>193</sup> found that 34 percent of children involved in sex work in Port Moresby began at 15 years, and approximately 41 percent began sex work before the age of 15 years. Around 61 percent of the children involved in commercial sex exploitation were living with immediate or extended family members.

PNG's ban on dangerous work is not compliant with international standards, necessitating that all children under the age of 18 be safeguarded from jobs that jeopardize their health and safety, as well as from securing or advancing illicit activities, including the production and trafficking of drugs.

<sup>189</sup> PNG Civil and Identity Registry, Vital Events Booklet (2019)

<sup>191</sup> UN 49th session of the Human Rights Council

<sup>192</sup> United Nations Office for Drugs and Crime and Pacific Island Forum Secretariat (2016)

<sup>193</sup> ILO, Child Labour in Papua New Guinea: A report on the rapid assessment in Port Moresby on commercial sexual exploitation of children and children working on the streets (2011). [https://www.ilo.org/suva/publications/WCMS\\_178379/lang-en/index.htm](https://www.ilo.org/suva/publications/WCMS_178379/lang-en/index.htm)

Additional government policies related to child labour include the PNG Trafficking in Persons National Action Plan (2015–2020), Universal Basic Education Plan (2010–2019), National Child Protection Policy (2017–2027), and Tuition Fee-Free Policy.

The intersection between violence against women and violence against children is borne out in the PNG context. According to the 2016–2018 DHS, approximately 60 percent of women with one or two children have experienced physical violence in contrast to 41 percent of women not living with any children, showing an increased risk of violence for women with children. Available data also suggests that violence against women and children in the home often co-occurs. For instance, around 60 percent of children who went to a women's shelter in Port Moresby had been abused.<sup>194</sup>

In PNG, children face elevated levels of violence with devastating consequences for their health, well-being, and development. Although the country lacks systematic data, the rates of violence against women and children are estimated as among the highest in the world, with the 2016–2018 DHS showing that 56 percent of women aged 15–19 years have experienced physical violence since the age of 15, and 28 percent in the same age group have experienced sexual violence.

There is a well-studied relationship between childhood experiences of violence and other criminal behaviours displayed by children. In PNG, a 2015 UNICEF study estimates that children who come into contact with the law – as victims, witnesses, or offenders – rarely enjoy the benefits of child-focused justice, including diversion and alternatives to detention. Moreover, little is known regarding the extent to which children with mental and/or physical disabilities have equitable access to justice in PNG. In addition, humanitarian disasters have the potential to disrupt development gains and render women and children further at risk of violence due to scarce resources. The COVID-19 pandemic has represented a threat to not only the physical health of children in PNG but also to their protection.

GoPNG launched the National Youth Development Policy 2020–2030 to address gaps identified in the legislative environment and programming for young people. The rights of the child, enshrined in the Constitution as human rights of citizens, were also protected through the enforcement of the Family Protection Act. Having noted that a lack of knowledge and information on human rights legislation often marred effective implementation, awareness-raising programs in the referral pathways were conducted in 2017 for child welfare service providers.

Between 2018 and 2019, awareness-raising was explicitly focused on village court officials, including magistrates, clerks, and peace officers, to inform them of the additional powers under the Family Protection Act and the Family Protection Regulations to issue interim protection orders. The regulations criminalized all forms of violence within the family unit,

recognizing domestic violence as a crime punishable by law with a fine of up to K10,000 (\$2,900) or six months' imprisonment. That created a regime for issuing family protection orders to deter and prevent violence at all levels of society. As a result, statistics from the Family Sexual Violence Action Committee alone indicated a total number of 414 cases reported in 2017, of which 318 involved female adults, 48 were adult cases, and 47 involved children. Actual recorded cases for the same year totalled 600. However, unreported incidents might push the records higher.

Under the Family Protection Act awareness-raising program, 360 village court officials in the Southern Highlands, Morobe, Oro Provinces, and Bougainville received basic training. In 2020, refresher training was conducted, ensuring village court officials were familiar with appropriate documentation for addressing domestic violence complaints. In addition, the Department of Justice and Attorney General developed information, education, and communication materials on the provisions of the Family Protection Act for partner agencies and the public, using simple English.<sup>195</sup>

### 5.3 Internal displacement and migrants

As the entity primarily responsible for promoting and protecting the rights of those in PNG, the Government needs to do more to prevent and avoid conditions that lead to internal displacement. Displacement in PNG occurs primarily because of natural hazards, tribal fights, violence over land, and the economic situation of families. Tribal fights over land are common and driven by the complexity of tenure relationships, overlapping land rights, migration due to economic or environmental factors, and cultural differences. Land and resource rights management, conflict prevention, mitigation, and peacebuilding, law and order provision in line with international human rights standards, along with addressing the root causes of conflict and violence and ensuring accountability for human rights violations and abuses, are all areas that need strengthening and which potentially drive displacement in some instances.

Displacement appears to be protracted, with households often living temporarily for over a year. These populations are more vulnerable to development challenges as they have less access to essential services, which increases the risk of human trafficking and people smuggling, as well as the psychosocial impacts of their displacement. Women and girls are especially susceptible to violence and abuse during displacement, from both within their communities and outside.

In PNG, internal displacement has also ignited conflicts. In a context with no policy or legislation addressing the needs of internally displaced persons, host communities react violently to displaced populations competing for resources and land. The under-resourced and overstretched nature of the institutions providing for justice and the rule of law contributes to impunity, which can fuel further violence.

The IOM's Displacement Tracking Matrix (2021) identified 44,547 internally

<sup>194</sup> Kirsten Anderson and Bruce Grant, Coram International (2022). Analysis of frameworks for addressing VAW and VAC in PNG at the national and provincial levels: Discussion paper for UN agencies.

<sup>195</sup> UN 49th session of the Human Rights Council

displaced persons (51 percent females and 49 percent males) in PNG, of which the highest percentage was in the Highlands region (43 percent). The Matrix found that 32,125 individuals (72 percent) were displaced by natural hazards such as flooding and volcanic activity, and 12,423 individuals (28 percent) due to the effects of human-induced hazards such as tribal and ethnic clashes. This number is estimated to be higher (approximately 75,000) due to the limited coverage of assessments because of inadequate resources and accessibility challenges to remote locations.

More must also be done to ensure an adequate standard of living for migrants. The rapidly rising proportion of those living in urban centres has aggravated the proliferation of unplanned squatter settlements where some of the most vulnerable and disadvantaged landless urban citizens live.<sup>196</sup> Because of the inflow of rural poor, the chronic and severe shortage of affordable rental housing in PNG's major cities exacerbates the vulnerability of the landless people to being left behind in development. Squatter and informal settlements on vacant state, private, and/or customary land are deemed illegal and unwanted.<sup>197</sup>

As a result, the settler communities with poor households with no certainty of land security, housing, clean water, or sanitation live a precarious existence vulnerable to demolitions, evictions, and removals, which can further exacerbate vulnerability, legal marginalization, and lack of access to essentials and government services. According to DNPM (2010, 2020), GoPNG is committed to catering to urbanization and socio-economic progress to deliver a quality of life for urban dwellers, including those living in the settlement areas. Public spending on settlement improvement on a modest scale to extend infrastructure (electricity, water, and sewerage) is one of the major initiatives to upgrade settlement areas. Nevertheless, as ADB suggested, allowing squatters to regularise their dwellings with a commitment to end evictions while also introducing some form of settlement housing finance would go a long way in ensuring that no one is left behind in development.

## 5.4 LGBTIQ+ community

Significant violence and discrimination are faced by the LGBTIQ+ community in PNG. Same-sex sexual relations remain a crime, although it is understood that the law is not rigorously enforced. Most communities in PNG are intolerant toward LGBTIQ+ members of the community, and individuals can face challenges, hostility, and attacks for revealing their sexual/gender identity. Due to widespread discrimination and stigma, potential impunity for such attacks is high and also results in low access to services such as health care for the LGBTIQ+ community.

## 5.5 Older persons

The Constitution does not include age as a basis on which discrimination is prohibited. According to the NPSP 2015-2020, approximately 4.6 percent of the population is over 60. However, no standard definition of

"older persons" is used in PNG.<sup>198</sup> The DfCDR is the office responsible for Government policy on older persons. In 2017, at least one survey was reportedly conducted on the rights of older persons, covering one area of Central province, to develop a National Policy on the Elderly.<sup>199</sup> However, the progress or status of this policy is not clear.

Based on this, comprehensive data on the situation of older persons in PNG is not readily available. Older people often rely on an extended family system of support for their care, and this can result in their being left behind, especially in economic downturns when household resources might have increased constraints. The National Social Protection Policy indicates an unspecified but likely increasing number of vulnerable older persons in the country.

Youth unemployment and general household income constraints would also disproportionately impact older persons relying on their younger family members for survival. Based on a 2015 World Bank analysis of the 2010 Household Income and Expenditure Survey, older persons 55 years and above are the most vulnerable to illness but the least likely to seek treatment.<sup>200</sup> This statistic also illustrates the vulnerability of older persons. Older persons, particularly women and specific categories of widows, have been reported to be groups among the most targeted for SARV, although this can vary.

## 5.6 People living with HIV/AIDS

This group often faces stigmatization from the community where they live, making them unwilling to disclose their status and, as such, making it difficult for them to access health care and other resources that people with HIV/AIDS need to survive. This difficulty has contributed to the spread of the virus in some communities. The 2016-2018 DHS shows that 44 percent of women and 43 percent of men expressed discriminatory attitudes towards people living with HIV. Stigma is further increased due to a perceived overlap between LGBTIQ+ communities and those who are HIV+.

## 5.7 Persons living with disabilities

In PNG, 19.6 percent of people aged five and over have functional difficulties. These difficulties involve communication, self-care, remembering or concentrating, walking or climbing steps, hearing, and seeing. More women (20.14 percent) than men (19.17 percent) have a functional disability. Most difficulties are seeing, walking, or climbing steps and remembering or concentrating. Most of the people with functional difficulties live in rural areas. A school attendance review shows that 67.8 percent of people with functional difficulties (74.8 percent male, 60.8 percent female) have attended school. Approximately 7.3 percent of people with functional difficulties are age 19 and below, and 61.5 percent are age 50 and above.<sup>201</sup>

<sup>196</sup> DNPM, 2010; DfCDR, no date

<sup>197</sup> ADB, 2012; Chand & Yala, 2006

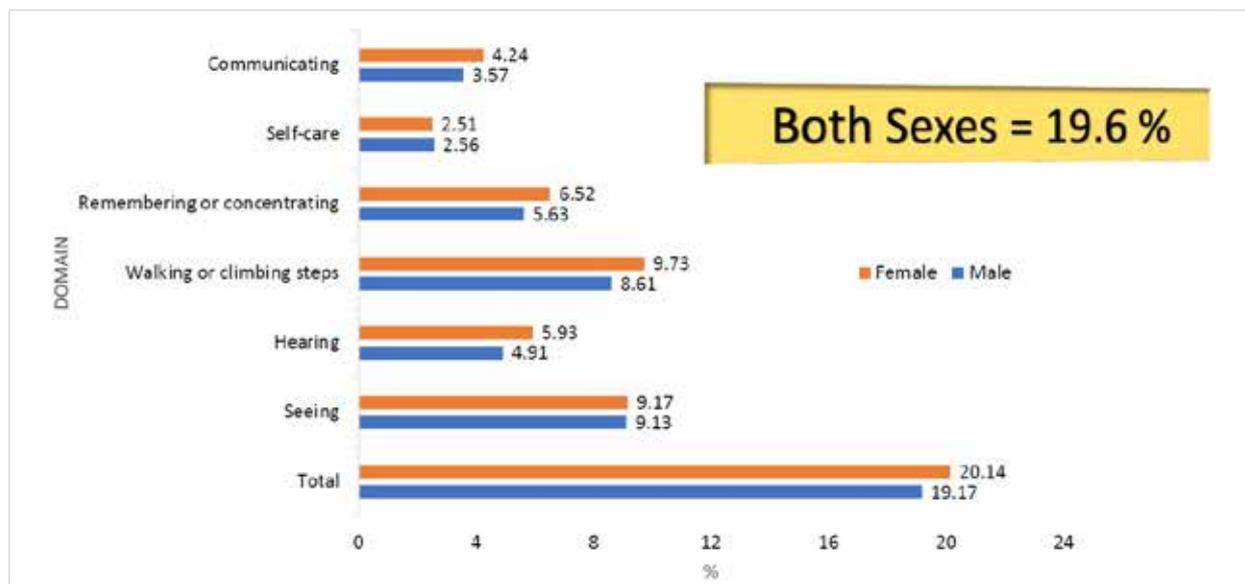
<sup>198</sup> Papua New Guinea National Policy on Social Protection 2015-2020, available in [https://www.dfcd.gov.pg/images/pdf\\_files/Social-Protection-Policy.pdf](https://www.dfcd.gov.pg/images/pdf_files/Social-Protection-Policy.pdf), at page 14.

<sup>199</sup> Press Release, "First Ever Elderly Data Survey Conducted in Central Province," Department of Community, 27 April 2017, available in [https://www.dfcd.gov.pg/images/pdf\\_files/Press-Release---First-Ever-Elderly-Survey-Conducted-in-Central-Province.pdf](https://www.dfcd.gov.pg/images/pdf_files/Press-Release---First-Ever-Elderly-Survey-Conducted-in-Central-Province.pdf), at 1.

<sup>200</sup> World Bank Group, HNP GP Knowledge Brief, A Snapshot of Health Equity in Papua New Guinea: An Analysis of the 2010 Household Income and Expenditure Survey, available in <https://openknowledge.worldbank.org/bitstream/handle/10986/23497/A0snapshot0of00d0expenditure0survey.pdf?sequence=1&isAllowed=y>, at page 2.

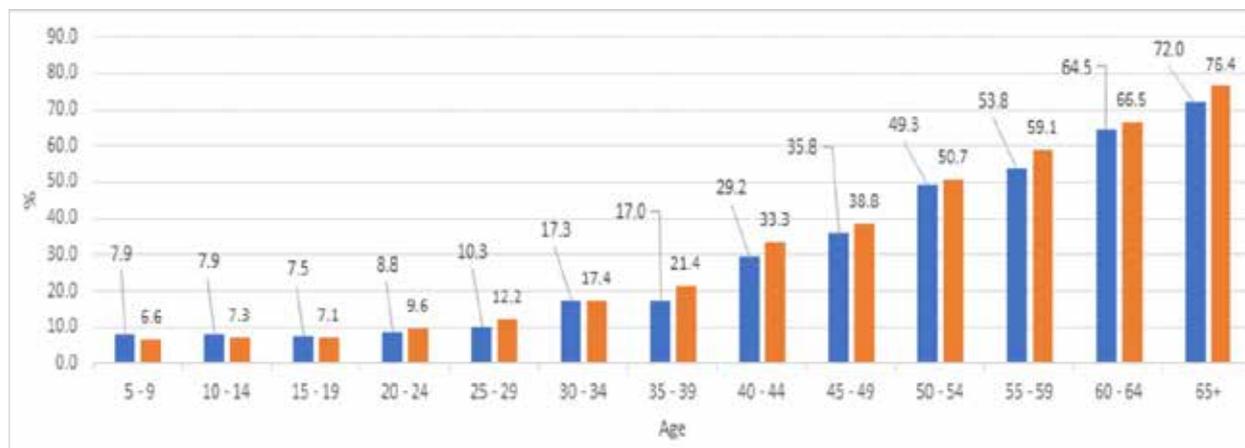
<sup>201</sup> PNG National Statistical Office Socio-demographic and Economic Survey, 2022

**FIGURE 36: PROPORTION OF POPULATION FIVE YEARS OLD AND OVER WITH A FUNCTIONAL DIFFICULTY BY SEX AND DOMAIN, 2022**



Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

**FIGURE 37: PROPORTION OF POPULATION FIVE YEARS OLD AND OVER WITH A FUNCTIONAL DIFFICULTY BY AGE GROUP AND SEX, 2022**



Source: PNG National Statistical Office Socio-demographic and Economic Survey, 2022

After PNG ratified the Convention on the Rights of Persons with Disabilities in 2013, the National Policy on Disability 2015-2025 was established. The overall aim of the Policy was to improve the welfare of PWD, realize their rights, remove barriers, and implement the Convention at the national level. Notable developments in PNG that address the needs of PWD include designing accessible infrastructure and facilities, including ramps for wheelchair access, dedicated toilet facilities, designated parking spots, and accessible banking facilities. PNG is also finalizing a draft Disability

Authority Bill and working towards its adoption in 2022, which aims to ensure all PWD's full and equal enjoyment of human rights. A Disability Authority Office has been established to implement the provisions of both the Policy on Disability and the Convention.

Sign language was made the official fourth language of PNG in 2015 and used in conferences and televised news programmes. It is also taught in some private schools and by the PNG Red Cross for children with special needs. Other support for PWD include hearing aid services provided

by Callan Services and disability prevention through health care and rehabilitation, inclusive education, and social support services for persons with special needs provided by Cheshire Disability Services.<sup>202</sup>

Despite the establishment of the Disability Policy, many issues remain in its implementation. As highlighted by civil society during the Universal Periodic Review process, there is currently no national disability data management system, leading to a lack of comprehensive data on the situation and issues faced by PWD in the country. In addition, the draft National Disability Authority Bill, which had been in preparation for several years, still had not been finalized or enacted at the time of the dissolution of the 10th Parliament in April 2022. Many PWD in PNG face significant barriers to accessing services, including quality and inclusive education. In addition, impunity for violence against PWD remains high, with PWD more vulnerable to the impacts of practices, including family violence, a situation compounded by the increased prevalence of such violence during the COVID-19 pandemic. PWD is also likely to be disproportionately impacted by issues surrounding access to the voting process for the National General Elections, given overall access challenges.

## 5.8 Persons living with mental health issues

Children and adolescents aged 0-18 years in PNG experience a substantial burden of poor mental health. There are minimal personnel with mental health training and skills, which creates a significant barrier to the implementation of mental health and psycho-social support. Moreover, there is a lack of available services responsive to the needs of children and adolescents, particularly at the primary health care and community levels.<sup>203</sup>

## 5.9 Sex workers

Sex workers in PNG continue to be victims of physical and sexual violence, with limited legal protection. Training to sensitize law enforcement officers to investigate cases of abuse of sex workers is insufficient. This issue is compounded by stigma, discrimination, lack of services, and limited access to the services available for sex workers.

Sex workers in PNG face sexual violence, discrimination, and stigma and are at risk of not accessing essential services such as health care. Sex workers encountering violence committed by law enforcement agents are reported to have difficulty seeking redress due to the stigmatized nature of their work and the criminal legal provisions relating to sex work. However, prostitution itself is not directly criminalized. In addition to difficulties accessing health care, many sex workers struggle to access legal protections and support services due to fear of disclosing their identity, facing criminal charges, and the perception that they are responsible for the spread of STIs.<sup>204</sup> Thus, sex workers tend to be one of the groups most left behind in the achievement of a range of SDGs.

## 5.10 Victims of trafficking

Data on trafficking in persons are scarce, rendering it challenging to assess the scale of the crime in PNG, particularly the trafficking of men for forced labour, women for forced labour and sex trafficking in logging camps and mines, and the trafficking of children for child labour in agriculture, fishing, logging, and extractive industries, the informal sector, and for forced marriage and sex trafficking. A lack of capacity and corruption challenges the ability of law enforcement to detect and investigate trafficking. Victims' access to legal and psychosocial services is limited due mainly to the lack of targeted services for trafficking victims. The added social stigma of abuse (sexual and physical) and the pervasive culture of silence and violence discourage self-identification or assistance for victims.

## 5.11 Women and girls

The incidence of domestic and GBV in PNG is one of the highest globally. Factors such as cultural and socio-economic elements, restricted access to education, and entrenched gender norms contribute to the elevated rates of GBV. Additionally, there is insufficient training for law enforcement and social service professionals in addressing GBV, leading to inadequate responses to such cases.

The full realization of women's and girls' rights requires significant additional investment and efforts by PNG. The rights of PNG women and girls were boosted by establishing a bipartisan Coalition of Parliamentarians Against GBV following the high-level meeting on combating GBV held in August 2020. The coalition includes 20 of the 111 (all male) MPs active on social media and declaring their commitment to support change. The inaugural GBV Summit was held in November 2020, and a special parliamentary committee to inquire into related issues was subsequently established. The committee comprised seven MPs and opened its inquiry in May 2021, with a call for written submissions and two days of public hearings at APEC Haus in Port Moresby. It held judicial hearings from April to June 2021 on combating GBV in the country. The committee presented a report to parliament on 12 August 2021, containing more than 70 recommendations for immediate action by the Government. One of the recommendations was the implementation of a quota of five seats reserved for women in parliament.

An ongoing major challenge relates to empowering and promoting women's inclusive and equal participation in the political arena at the parliamentary level. The quota of five reserve seats recommended by the special parliamentary committee is expected to enable one woman representative for each national geographical region and the NCD. While this arrangement was discussed as being passed for the National General Elections 2022, it was not agreed in time.

The number of women standing for election at all levels of political representation is increasing. Several women have been elected as ward

<sup>202</sup> UN 49th session of the Human Rights Council

<sup>203</sup> Nojj Frank, Bardakova Lidia, Lavu Esther, Yamarak Londari, Anton Melkie, Papua New Guinea: Population Situation Analysis, UNFPA Papua New Guinea December 2023 Report

<sup>204</sup> Amnesty International, *Outlawed and Abused, Criminalising Sex Work in Papua New Guinea*, Executive Summary, available in <https://www.amnesty.org/en/wp-content/uploads/2021/05/ASA3441292016ENGLISH.pdf> (2016)

councillors locally and serve a three-year term. Of the 18,480 village court officials, 1,500 are women, who are reportedly very effective in their roles and as advocates for social order, human rights, and peace within their communities.<sup>205</sup>

Regarding bureaucratic leadership, in the Public Service Commission's Gender Equity and Social Inclusion Policy, a framework had been set out to promote gender equity and socially inclusive practices across the Commission. The policy had been developed to address several issues regarding individuals who were directly or indirectly being disadvantaged or discriminated against, including PWD and HIV/AIDS, and discrimination based on nationality, race, ethnicity, gender, or other personal attributes.

Few women-owned established businesses; most were operating in the informal sector. In 2018, 200 village women were trained by the DfCDR in processing coconuts into marketable products such as virgin oil. Five hundred women across PNG were invited to showcase their products at the regional exposition organized to build their product development, improvement, and marketing capacity. In September 2021, at the national dialogue held in the lead-up to the United Nations Food Systems Summit, more women from the informal sector shared their experiences and success stories in agriculture and food security entrepreneurship.

## 5.12 Youths and adolescents

The burgeoning youth cohort, who have limited employment opportunities and who may consequently engage in criminal activities and substance abuse, is a significant risk to inclusive growth and poverty reduction. PNG youth find themselves at a crossroads, increasingly frustrated with traditional decision-making processes that exclude them and unable to take full advantage of the opportunities a growing economy offers. Relationships between the generations have historically been rigid, with decision-making power consolidated with the clan elders. New opportunities to circumvent traditional processes and move up the social ladder more quickly are generated by the influx of natural resource projects and increased mobility that allows youth to migrate to urban areas.

However, such opportunities are in short supply. Growth in recent decades has not been sufficiently inclusive in providing decent jobs for the number of young new entrants to the labour force. Opportunities for youth are severely limited. The youth unemployment rate is higher than that of the overall population, and there is stigmatization and exclusion of youth from urban formal labour markets. Economically active youth are primarily engaged within the informal economy, where their activities can be subject to intense competition and violence.

That this large, dynamic, education-hungry demographic cohort might not have the opportunity to live up to its enormous potential would be an extraordinary waste of PNG's human capital. At the same time, this creates a large pool of disaffected and available youth, for whom political action in support of patrons may seem among the few options available for improvements in their circumstances. Political disappointment often seems inevitable and, as seen in recent elections, can erupt into local violence.<sup>206</sup>

Limited opportunities for youth in the rural economy have driven large rural-urban migration flows, increasing their social and economic vulnerability. The social capital that young people have in their ties with family, village, and tribe is an often overlooked yet important asset that can be eroded during this migration. Subsequent generations born and raised in these urban centres must also confront related challenges: they may be unfamiliar with their mother tongue and tribal affiliations, may not know the extended family in the rural areas, and may consequently have no means of accessing customary land and associated resources. On the other hand, while community dynamics governing urban settlements differ from those in the village, familiar kin and groups provide some dimension of support, especially in times of sickness, financial, or law and justice difficulty. Affiliation patterns in urban contexts are incredibly flexible, with Tok Pisin, school, church, and sporting activities providing new forms of association.<sup>207</sup>

Participation in criminal activities can present a potentially attractive avenue for income generation for many young, economically inactive males living in urban settlements. The youth are routinely depicted as being at the root of PNG's violence and social order issues. Anecdotal and some limited survey evidence suggest that most of the relatively severe criminal offences in Port Moresby are committed by young males between the ages of 15 and 20. Violent and armed youth gangs that have in the past gained notoriety throughout urban centres in modern PNG constitute influential organizing entities for engaging in such activities. They may also provide an essential sense of group identity to disenfranchised urban youth disconnected from their cultural roots and traditional communities.

Prominent contentious views hold that when youth are denied the opportunity for meaningful economic and social advancement in societies with very young populations, this can become a source of broader instability and civil unrest. At the same time, urban youth make considerable contributions to family economies in PNG, primarily through informal marketing. Moreover, there is evidence that urban youth gangs have failed to institutionalize and may have entered decline.<sup>208</sup>

<sup>205</sup> UN 49th session of the Human Rights Council

<sup>206</sup> World Bank, PNG Country Diagnostic, 91-92

<sup>207</sup> World Bank, PNG Country Diagnostic, 91-92

<sup>208</sup> Ibid.

# 6. Multidimensional Risk Analysis

**TABLE 8: RISK ANALYSIS FOR THE HIGHLANDS**

SDGs	Risk Area	PNG Risk factors
 	Democratic space	<ul style="list-style-type: none"> <li>• Limited gender diversity in Parliament, with only three elected female MPs</li> <li>• Political stability</li> <li>• Limited participation and representation for CSOs/ NGOs</li> </ul>
 	Displacement and migration	<ul style="list-style-type: none"> <li>• Settlers and landless people experience a lack of services and employment opportunities that contribute to the migration of people from rural areas. As a result, they become landless after living where they have settled for several years.</li> <li>• Displaced persons experience a lack of durable solutions and are marginalized/lack access to government and other services and thus are in a situation of protracted displacement</li> </ul>
 	Economic stability	<ul style="list-style-type: none"> <li>• Weak public finance management</li> <li>• Dependence on loans and international aid to finance revenue gaps</li> <li>• Foreign exchange shortages</li> <li>• Dependence on the extractive industries</li> <li>• Some SOEs require reform</li> <li>• Reduced fiscal space for social service expenditure</li> <li>• Mineral revenue management</li> <li>• Resource allocation to human development</li> <li>• COVID-19 contributed to shrinking fiscal space for development</li> <li>• Budget allocation alignment to SDGs/development policies</li> </ul>
    	Environment and Climate	<p><b><u>Clearing and habitat loss</u></b></p> <ul style="list-style-type: none"> <li>• Biodiversity loss</li> <li>• Climate change (loss of carbon sink, deforestation and degradation)</li> <li>• Loss of environment and ecosystem services such as clean water (loss of protected catchments, sedimentation)</li> <li>• Food security (soil erosion, loss of forest resources, loss of soil fertility, loss of hunting and fish catch)</li> <li>• Disasters (increased likelihood of landslides, floods, famine, fires)</li> <li>• Increased conflict and women most affected</li> <li>• Loss of cultural values</li> </ul> <p><b><u>Unsustainable extractive industries</u></b></p> <ul style="list-style-type: none"> <li>• Pollution</li> <li>• Sedimentation and flooding</li> <li>• Greater inequality due to loss of land and basic sustenance</li> <li>• Poverty, marginalization, and conflicts</li> </ul> <p><b><u>Unsustainable resource use and wildlife trade</u></b></p> <ul style="list-style-type: none"> <li>• Biodiversity loss</li> <li>• Loss of cultural values</li> <li>• Loss of livelihood</li> </ul> <p><b><u>Food security (decline in available hunting and fish catch)</u></b></p> <ul style="list-style-type: none"> <li>• Biodiversity loss</li> <li>• Unhealthy population</li> <li>• Loss of income and poverty</li> </ul> <p><b><u>Invasive species</u></b></p> <ul style="list-style-type: none"> <li>• Biodiversity (competition, predation, diseases)</li> <li>• Food security (economic loss, loss of crops and native fish and animals)</li> </ul>

 	<p>Environment and Climate</p>	<p><b><u>Loss of biocultural knowledge</u></b></p> <ul style="list-style-type: none"> <li>• Biodiversity (loss of knowledge and traditional sustainability measures)</li> <li>• Loss of cultural identity, practices, and language</li> </ul> <p><b><u>Pollution from mining, waste disposal, plantations and industry</u></b></p> <ul style="list-style-type: none"> <li>• Loss of clean water (loss of protected catchments, sedimentation)</li> <li>• Climate change (emissions)</li> <li>• Food security (loss of farming lands and fish catch)</li> <li>• Health risks (disease and sickness)</li> <li>• Invasive species (species displacement and loss, predation and competition)</li> </ul> <p><b><u>Climate change</u></b></p> <ul style="list-style-type: none"> <li>• Biodiversity</li> <li>• Climate change (increased sea level rise, flood, drought, cyclone, coral bleaching, varied weather patterns)</li> <li>• Food security (loss of cultivable land, fish catch)</li> <li>• Disasters (increased likelihood of landslides, floods, famine, fires)</li> <li>• Displacement, increased conflict, and women most affected</li> </ul>
 	<p>Food security, agriculture, and land</p>	<ul style="list-style-type: none"> <li>• PNG faces significant challenges in ending hunger, achieving food security, improving nutrition, and promoting sustainable agriculture</li> </ul>
 	<p>Internal Security</p>	<p><b><u>Illicit trafficking and smuggling</u></b></p> <ul style="list-style-type: none"> <li>• PNG has increasingly suffered severe harm from transnational crime threats such as human trafficking, illegal firearms dissemination, illegal logging and other forestry crimes, and illicit drug trafficking/production</li> <li>• Due to its porous borders, gaps in customs compliance, and limited law enforcement resources, PNG faces challenges from illicit trafficking, smuggling through containers, and the movement of contraband goods. In this regard, two of the most pressing issues for PNG are timber and drug trafficking. PNG is increasingly being used as a transit point for drugs trafficked to neighbouring countries in the Pacific and is occasionally being used for the production of synthetic drugs.</li> <li>• Significant levels of insecurity and the prevalence of violence are increasingly attributed to organized crime groups operating on the territory and conducting a wide range of illicit activities, as witnessed during the PNG national election in 2022</li> </ul>
     	<p>Infrastructure and access to social services</p>	<ul style="list-style-type: none"> <li>• Inequitable and inaccessible access is based on urban/rural location, income/wealth, education attainment, and sex or gender; rural people are more likely to have problems accessing health care than their urban counterparts – 66.9% of women in rural areas stated that getting money for treatment hinders access to health care compared to only 40% in urban areas.</li> </ul>
 	<p>Justice and the Rule of Law</p>	<p><b><u>Corruption and money laundering</u></b></p> <ul style="list-style-type: none"> <li>• Political and business corruption – enabled through robust patronage networks, cross-border transactions, and increasingly sophisticated schemes – is at the core of many major threats to PNG and its people.</li> <li>• Integrity institutions urgently need more significant resourcing, independence, and inter-agency collaboration to strengthen PNG's law and order and anti-corruption efforts.</li> <li>• Identified gaps in implementing the UN Convention Against Corruption (UNCAC) and anti-corruption legislation in PNG; The Global Corruption Barometer (2021 data) found 54% of respondents paid a bribe to get a service in the public sector for the past twelve months and 96% think corruption in government is a big problem.</li> </ul>

		<ul style="list-style-type: none"> <li>• Corruption within government institutions, law enforcement, and regulatory agencies has enabled criminal groups to benefit further from illicit profit and activities in PNG. Timber, mining, and natural gas are reported as the prime sources of illicit financial flows in PNG, undermining the country's licit economy. Gaps in PNG's anti-money laundering regime continue to impact and pose further risks to its economy substantially.</li> </ul> <p><b><u>Limited capacity of the criminal justice system</u></b></p> <ul style="list-style-type: none"> <li>• The limited resources available to law enforcement agencies affect the criminal justice system's capacity in PNG, including an insufficient number of officers to respond to crimes and the lack of a shared database for coordination and collection of statistics. The lack of multi-sectoral coordination within the criminal justice system is considered a factor contributing to inefficient and ineffective criminal justice responses in PNG.</li> <li>• Prosecution processes are slow; more law enforcement officers must be appointed and trained.</li> <li>• Limitations in documenting, investigating, and prosecuting tribal-related violence results often in the loss of life and property. Similarly, responses to cases of trafficking in persons and children victims of forced marriage and sexual exploitation are undermined by legislation requiring the presence of means of force, fraud, or coercion to determine child sex trafficking.</li> </ul>
 	Political stability	<ul style="list-style-type: none"> <li>• PNG's poor formal governance scoreboard</li> <li>• Need for a more robust institutional response to corruption as assessed under the UN Convention Against Corruption Implementation Review Mechanism and the PNG Anti-Corruption Project.</li> </ul>
 	Public health	<ul style="list-style-type: none"> <li>• 49.5% of the total population of children under five suffered from stunting: amount of underweight children under five; tuberculosis prevalence</li> <li>• For epidemic risk, PNG ranks 31 of 190 countries, remaining first among countries in South-East Asia and the Pacific region.</li> <li>• The under-five mortality rate was 49 deaths per 1000 live births in rural areas in the five years preceding the 2016-2018 DHS. In urban areas, the rate is 41 per 1000 live births.</li> <li>• COVID-19 health risks</li> <li>• Uneven access to health services based on gender and location and the multidimensional risks associated with vulnerabilities (disability, age, gender)</li> <li>• Lack of adequate investment in health infrastructure</li> <li>• Highest levels of HIV/Aids drug resistance and rising levels of STIs</li> <li>• Harmful practices due to insufficient knowledge/access to services.</li> </ul>
	Regional and global influences	Climate change, economic volatility, transnational crime, global and regional policies of Australia, the US, and China, the impact of wars in Ukraine and the Israel-Gaza conflict
   	Social cohesion, equality, and non-discrimination	<p><b><u>Gender-based violence</u></b></p> <ul style="list-style-type: none"> <li>• GBV remains a grave concern for PNG. Around 55% of women reported having experienced physical violence since age 15, with 28.2% experiencing sexual violence and 34.5% experiencing both physical and sexual acts of violence.</li> <li>• Various intersecting cultural and socio-economic factors commonly present in a deeply patriarchal and patrilineal society are considered the root cause of GBV in PNG.</li> <li>• The reported low prosecution and conviction rate of GBV cases contribute to exacerbating this problem, and the limited capacity and resources available to law enforcement also undermine the responses to cases of GBV.</li> </ul>

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# 8. Annexes

## Annexe 1: List of Stakeholders consulted from 2020 to 2021

1. Asian Development Bank
2. Government of Australia
3. Care International
4. Caritas
5. CDI Foundation
6. Centre for Environmental Law and Community Rights (CELCOR)
7. Child Fund
8. Christensen Fund Melanesian Program
9. Climate Change Development Authority
10. Commonwealth Scientific and Industrial Research Organisation (CSIRO)
11. Community Rights and Advocacy Forum
12. Conservation and Environment Protection Authority (CEPA)
13. Department of Agriculture and Livestock
14. Department of Community Development and Religion
15. Department of Education
16. Department of Foreign Affairs and Trade
17. Department of Health
18. Department of Implementation and Rural Development
19. Department of Justice and Attorney General
20. Department of Lands and Physical Planning
21. Department of National Planning and Monitoring
22. Department of Provincial Affairs and Local-Level Government
23. Department of Treasury
24. Digicel Foundation
25. Eco custodians
26. Equal Playing Field
27. European Union Commission
28. FHI 360
29. International Committee of Red Cross
30. International Labour Organisation
31. International Union for Conservation of Nature (IUCN) Oceania
32. James Cook University
33. Japan International Cooperation Agency
34. Kokoda Track Foundation
35. Leitana Nehen Women's Development Agency
36. Meri Toksave
37. Museum, Hawaii
38. National Capital District Commission
39. National Quarantine Inspection Authority
40. National Statistical Office
41. National Youth Development Authority
42. New Zealand Agency for International Development
43. Oil Search Foundation
44. PIKU Biodiversity network
45. PNG Forest Authority
46. PNG National Disaster Centre
47. PNG Stock Exchange
48. Principal lawyer, CELCOR
49. Reef and Rainforest Research Centre
50. Royal Melbourne Institute of Technology (RMIT)
51. Save the Children Fund
52. Secretariat of the Pacific Regional Environment Programme
53. The Nature Conservancy
54. The Voice Inc
55. United States Agency for International Development (USAID)
56. University of New South Wales/ Australian Centre for International Agricultural Research (UNSW/ACIAR)
57. WaterAid Global
58. Wildlife Conservation Society PNG
59. World Bank
60. World Vision
61. Worldwide Fund for Nature (WWF)
62. Young Women's Christian Association.

## ANNEX 2: DETAILED ASSESSMENT OF PNG PROGRESS AGAINST SDG TARGETS<sup>209</sup>

There has been no recorded progress on the detailed assessment since 2022.



Target	Current PNG Status
1.1: By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	The proportion of the population living below the extreme poverty line was 51.0% in 1996, compared with 56.6% being multidimensionally poor in 2018.
1.2: By 2030, reduce at least by half the proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definitions	The proportion of the population living below \$1.90/day – 29.8% in 2022 The proportion of the population living below \$3.20/day – 53.2% in 2022
1.3: Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030, achieve substantial coverage of the poor and the vulnerable	The proportion of the employed population covered in the event of work injury was 6.4% in 2019.  The proportion of the population covered by at least one social protection benefit – 0.2% in 2018  The proportion of the population above statutory pensionable age receiving a pension increased from 1.0% in 2000 to 4.9% in 2019.
1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	The population using essential drinking water services increased from 34.0% in 2000 to 41.3% in 2017  The population using essential sanitation services declined from 20.9% in 2000 to 12.9% in 2017
1.5: By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social, and environmental shocks and disasters	The direct economic loss in the housing sector attributed to disasters increased from \$1.3 million in 2006 to \$1.7 million in 2013
1. a: Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular, least developed countries, to implement programmes and policies to end poverty in all its dimensions	Government expenditures do not directly target poverty reduction programmes
1. b: Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions	NA



Target	Current PNG Status
2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	24.6% of the population is considered undernourished (2019)
2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	In 2010, 49.5% of children under five years of age had stunted growth  The proportion of children under five who were moderately or severely wasted increased from 4.4% in 2005 to 14.1% in 2010  The proportion of overweight children under 5 increased from 3.4% in 2005 to 13.7% in 2010  In 2016, 21.3% of the adult population was obese (BMI >30)

<sup>209</sup> <https://unstats.un.org/sdgs/dataportal/countryprofiles/>

2.3: By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	NA
2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters and that progressively improve land and soil quality	In 2018, cereal yield (tonnes per hectare of harvested land) was 4.7 In 2015, Sustainable nitrogen management index (best =0 and worst =1.41) was 0.9
2.5: By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed	In 2019, 1567.0 plant breeds with sufficient genetic resources were stored compared with 1,376 in 2010.
2. a: Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular, least developed countries	The share of agriculture value-added in total GDP increased from 22.4% in 2001 to 17% in 2019 Agriculture as a share of total government expenditure declined from 2.3% in 2001 to 1.7% in 2002
2. b: Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round	Agricultural export subsidies declined from \$60.1 million (at constant prices in 2018) in 2000 to \$44.6 million in 2018.
2. c: Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility	NA



Target	Current PNG Status
3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	The maternal mortality ratio decreased from 249.0 per 100,000 live births in 2000 to 145.0 per 100,000 live births in 2017.
3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	The mortality rate of children under 5 fell from 72.4 deaths per 1,000 live births in 2000 to 47.8 deaths per 1,000 live births in 2018 The infant mortality rate fell from 54.4 deaths per 1,000 live births in 2000 to 38.0 deaths per 1,000 live births in 2018 The neonatal mortality rate fell from 28.7 deaths per 1,000 live births in 2000 to 22.1 deaths per 1,000 live births in 2018
3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	In 2020, about 0.4 people in every 100,000 uninfected populations will become newly infected with HIV In 2020, the incidence of tuberculosis was 441.0 per 100,000 population The prevalence of hepatitis B surface antigen (HBsAg) was 2.2% in 2015

<p>3.4: By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being</p>	<p>The risk of dying between ages 30 and 70 from one of four primary non-communicable diseases (cardiovascular disease, cancer, diabetes, or chronic respiratory disease) increased from 28.2 percent in 2010 to 36.0 percent in 2019</p> <p>The suicide mortality rate fell from 7.1 deaths per 1,000 population in 2000 to 6.0 deaths per 1,000 population in 2016</p>
<p>3.5: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol</p>	<p>The 12-month prevalence of alcohol use disorders was 5.3% in 2016</p> <p>Alcohol consumption per capita among the population aged 15 years and older fell from 1.8 litres of pure alcohol in 2000 to 1.4 litres of pure alcohol in 2018</p>
<p>3.6: By 2020, halve the number of global deaths and injuries from road traffic accidents</p>	<p>The death rate due to road traffic injuries fell from 17.8 per 100,000 population in 2000 to 12.6 per 100,000 population in 2019</p>
<p>3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes</p>	<p>The proportion of women of reproductive age who need family planning satisfied with modern methods increased from 40.6% in 2007 to 49.2% in 2018</p> <p>The adolescent birth rate was 68.0 per 1,000 women aged 15-19 years in 2016</p>
<p>3.8: Achieve universal health coverage, including financial risk protection, access to quality essential healthcare services, and access to safe, effective, quality and affordable essential medicines and vaccines for all</p>	<p>The universal health coverage service coverage index (100% best) increased from 29.0% in 2000 to 33% in 2019</p>
<p>3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p>	<p>The mortality rate attributed to unsafe water, sanitation, and lack of hygiene was 16.3 deaths per 1,000 in 2016</p> <p>The age-standardized mortality rate attributed to household air pollution was 125.0 deaths per 100,000 population in 2016</p> <p>The age-standardized mortality rate attributed to ambient air pollution was 152.0 deaths per 1,000 population in 2016</p> <p>The mortality rate attributed to unintentional poisonings fell from 2.2 deaths per 1,000 population in 2000 to 1.7 deaths per 1,000 population in 2016</p>
<p>3. a: Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate</p>	<p>NA</p>
<p>3. b: Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.</p>	<p>The target population with access to 3 doses of diphtheria-tetanus-pertussis (DTP3) was 61.0% in 2018</p> <p>The proportion of the target population with access to pneumococcal conjugate third dose (PCV3) was 43.0% in 2018</p>
<p>3. c: Substantially increase health financing and the recruitment, development, training, and retention of the health workforce in developing countries, especially in least developed countries and small island developing States</p>	<p>Gross disbursements of total ODA received for medical research and primary health sectors decreased from \$122.3 million in 2000 to \$52.4 million in 2018</p> <p>Net disbursement of total ODA received for medical research and primary health sectors was \$51.0 million in 2018</p>
<p>3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks</p>	<p>In 2018, there were about 0.7 medical doctors for every 10,000 persons in the population</p> <p>Births attended by skilled health personnel 56.4 percent in 2018</p>



Target	Current PNG Status
4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	<p>In 2018, 97.6% of children were enrolled in primary education</p> <p>In 2018, 37.2% of students completed lower secondary school</p> <p>In 2010, the literacy rate for the population aged 15 to 24 was 67.9%</p>
4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care, and pre-primary education so that they are ready for primary education	In 2018, 71.4% of children aged between 4 to 6 years of age participated in pre-primary organized learning
4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	In 2019, the ratio of female-to-male mean years of education received was 75.5%
4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	NA
4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	NA
4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	NA
4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	NA
4. a: Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	NA
4. b: By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	Total official flows received for scholarships declined from \$20.3 million (constant 2018 prices) in 2006 to \$14.5 million (constant 2018 prices) in 2018
4. c: By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	NA

Target	Current PNG Status
5.1: End all forms of discrimination against all women and girls everywhere	2013 Public Service Gender Equality and Social Inclusion Policy
5.2: Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	National Strategy on GBV 2016-2025 In 2020, more than 50% of women aged 15-49 years had experienced domestic violence since age 15, and 28% have experienced sexual violence
5.3: Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation	The proportion of women aged 20-24 who were married or in a union before age 18 was 27.3% in 2018  The proportion of women aged 20-24 who were married or in a union before age 15 was 8.0% in 2018
5.4: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	NA
5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	The proportion of seats held by women in single or lower houses of parliament was 0.0% in 2020  In 2010, 18.1% of managerial positions were held by women  In 2010, 19.3% of senior and middle managerial positions were held by women  In 2020, the ratio of female to male labour force participation rate was 96.6%
5.6: Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	The proportion of women of reproductive age who need family planning satisfied with modern methods increased from 40.6 % in 2007 to 49.2% in 2018
5. a: Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, in accordance with national laws	NA
5. b: Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women	NA
5. c: Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels	NA

Target	Current PNG Status
6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all	In 2020, 45.3% of the population used at least essential drinking water services
6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	In 2020, 19.2% of the population used at least essential sanitation services In 2017, 14.5% of the population practised open defecation
6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	In 2018, there was no anthropogenic wastewater that received treatment
6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	In 2018, the level of water stress – freshwater withdrawal as a proportion of available freshwater resources – stood at 0.1%.
6.5: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	In 2018, 864.4 m3 H2O eq/capita scarce water consumption was embodied in imports. The degree of integrated water resources management implementation was 25.0% in 2018
6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	The permanent water body extent stood at 1.1% of the total land area in 2018
6. a: By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling, and reuse technologies	Total gross disbursements of ODA received for water supply and sanitation increased from \$12.7 million (constant 2018 prices) in 2000 to \$33.9 million (constant 2018 prices) in 2018
6. b: Support and strengthen the participation of local communities in improving water and sanitation management	NA

Target	Current PNG Status
7.1: By 2030, ensure universal access to affordable, reliable, and modern energy services	The proportion of the population with access to electricity increased from 11.0% in 1996 to 54.4% in 2017
7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	In 2018, 8.0% of the population relied primarily on clean fuels and technology. The share of renewable energy in the total final energy consumption declined from 66.4% in 2000 to 49.7% in 2017.
7.3: By 2030, double the global rate of improvement in energy efficiency	The level of primary energy intensity declined from 6.5 megajoules per dollar of GDP (in constant 2011 PPP) in 2000 to 5.1 megajoules per dollar of GDP (in constant 2011 PPP) in 2017.
7. a: By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	International financial flows supporting clean energy research and development and renewable energy production, including hybrid systems, were nil in 2004 to \$260.9 million (constant 2017 dollars) 2017.
7. b: By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support	NA

Target	Current PNG Status
8.1: Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7% GDP growth per annum in the least developed countries	The annual growth rate of real GDP per capita was -2.0% in 2018
8.2: Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	The annual growth rate of real GDP per employed person increased from -5.5% in 2000 to 3.0% in 2019.\
8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	NA
8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead	NA
8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	The total unemployment rate was 2.6% in 2022
8.6: By 2020, substantially reduce the proportion of youth not in employment, education or training	The proportion of youth not in education, employment, or training was 27.7% in 2010
8.7: Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025, end child labour in all its forms	NA
8.8: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular, women migrants and those in precarious employment	<p>In 2017, the level of national compliance with labour rights (freedom of association and collective bargaining) based on ILO textual sources and national legislation stood at 1.5</p> <p>In 2018, victims of modern slavery were 10.3 per 1,000 population</p> <p>In 2015, fatal work-related accidents embodied in imports were 0.1 per 100,000 population</p>
8.9: By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products	NA
8.10: Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	<p>In 2018, there were 8.2 ATMs per 100,000 adults</p> <p>In 2018, there were 1.5 commercial bank branches per 100,000 adults</p>
8. a: Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries	<p>Total official disbursements received in Aid for Trade increased from \$56.4 million (constant 2018 dollars) in 2006 to \$232.0 million (constant 2018 dollars) in 2018</p> <p>Total official commitments pledged by donors in Aid for Trade increased from \$123.0 million (constant 2018 dollars) in 2005 to \$224.8 million (constant 2018 dollars) in 2018.</p>
8. b: By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the ILO	NA

Target	Current PNG Status
<p>9.1: Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p>	<p>In 2018, the Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1–5 best) was 2.0</p> <p>In 2018, freight volume by road transport was 4.1 billion tonne-kilometers</p> <p>In 2018, passenger volume by air transport was 1.5 billion passenger-kilometres</p> <p>In 2018, container port traffic (maritime transport) reached 0.3 million TEUs (twenty-foot equivalent units)</p>
<p>9.2: Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and GDP, in line with national circumstances, and double its share in least developed countries</p>	<p>Manufacturing value added per capita (constant 2015 prices) increased from \$52.1 in 2000 to \$60.9 in 2019.</p> <p>Manufacturing value added as a proportion of GDP declined from 2.6% in 2000 to 2.3% in 2019</p> <p>Manufacturing employment as a proportion of total employment increased from 1.1% in 2000 to 1.8% in 2010</p>
<p>9.3: Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets</p>	<p>In 2015, the share of small-scale industries with a loan or line of credit was 30.9%</p>
<p>9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p>	<p>NA</p>
<p>9.5: Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending</p>	<p>In 2022, The Times Higher Education Universities Ranking: Average score of the top 3 universities (worst 0–100 best) was 0.0</p> <p>In 2020, articles published in academic journals (per 1,000 population) was 0.0</p> <p>In 2016, expenditure on research and development (% of GDP) was 0.0</p> <p>In 2016, the density of full-time researchers per million inhabitants was 35.5</p>
<p>9. a: Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States</p>	<p>Total official flows received for infrastructure increased from \$219.1 million (constant 2018 dollars) in 2000 to \$301.3 million (constant 2018 dollars) in 2018.</p>
<p>9. b: Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities</p>	<p>In 2017, the share of medium and high-tech industry in total value added was 12.6%</p>
<p>9. c: Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020</p>	<p>In 2017, the population using the Internet was 11.2%</p> <p>In 2019, mobile broadband subscriptions were 11.8 per 100 population</p> <p>In 2017, 89.0% of the population was covered by at least a 2G mobile network</p> <p>In 2017, 64.4% of the population was covered by at least a 3G mobile network</p> <p>In 2017, 50.0% of the population was covered by at least a 4G mobile network</p>

Target	Current PNG Status
10.1: By 2030, progressively achieve and sustain income growth of the bottom 40 percent of the population at a rate higher than the national average	In 2017, 30.7% of GDP was from labour, comprising wages and social protection transfers.
10.2: By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	NA
10.3: Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	NA
10.4: Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	In 2009, 20% of the population was living below half of the median income
10.5: Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations	<p>The share of non-performing loans in total gross loans increased from 1.8% in 2008 to 3.7% in 2018</p> <p>The return on assets declined from 6.4% in 2008 to 3.8% in 2018</p> <p>The ratio of regulatory capital to assets increased from 11.7% in 2008 to 14.5% in 2018</p> <p>The ratio of non-performing loans (net of provisions) to capital increased from 2.8% in 2008 to 5.6% in 2018.</p> <p>The ratio of liquid assets to short-term liabilities increased from 18.7% in 2008 to 21.5% in 2018.</p>
10.6: Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions	NA
10.7: Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies	NA
10. a: Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements	The proportion of tariff lines applied to imports with zero tariff increased from 66.7 % in 2005 to 74.2% in 2018
10. b: Encourage official development assistance and financial flows, including FDI, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes	The total amount received in assistance for development increased from \$333.1 million in 2000 to \$657 million in 2018
10. c: By 2030, reduce to less than 3 percent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 percent	Remittance costs were 16.9% of the amount remitted in 2011

Target	Current PNG Status
11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	NA
11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	NA
11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	NA
11.4: Strengthen efforts to protect and safeguard the world's cultural and natural heritage	NA
11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global GDP caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	NA
11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	In 2019, the annual mean concentration of particulate matter of fewer than 2.5 microns in diameter (PM2.5) was 11.0 micrograms per cubic meter (above the WHO max safety level of 10 µg/m <sup>3</sup> )
11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	NA
11.a: Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	NA
11. b: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels	NA
11.c: Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials	NA

Target	Current PNG Status
12.1: Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	NA
12.2: By 2030, achieve the sustainable management and efficient use of natural resources	In 2017, the material footprint (amount of primary materials used) stood at 4.6 kg per unit of GDP  Domestic material consumption decreased from 13.8 metric tons per capita in 2000 to 10.2 metric tons per capita in 2017
12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	NA
12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	Production-based SO <sub>2</sub> emissions (kg/capita) 3.4 2018 SO <sub>2</sub> emissions embodied in imports (kg/capita) 0.6 2018 Production-based nitrogen emissions (kg/capita) 1.7 2015 Nitrogen emissions embodied in imports (kg/capita) 0.4 2015
12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Municipal solid waste (kg/capita/day) 0.3 in 2014  Electronic waste generated per capita increased from 0.4 kg in 2000 to 1.1 kg in 2019
12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	NA
12.7: Promote public procurement practices that are sustainable, in accordance with national policies and priorities	NA
12.8: By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	NA
12. a: Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production	NA
12. b: Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	NA
12. c: Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities	NA

Target	Current PNG Status
13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	<p>In 2015, there were 0.4 deaths and missing persons attributed to disasters per 100,000 population.</p> <p>In 2015, there were 30.0 deaths due to disasters</p> <p>In 2013, there were 358.0 people with destroyed dwellings due to disasters</p> <p>In 2013, there were 4.6 people affected by disasters per 100,000 population</p> <p>In 2016, the DMT and Cluster coordination were established to address natural disasters</p>
13.2: Integrate climate change measures into national policies, strategies, and planning	<p>In 2020, 0.7 (tCO<sub>2</sub>/capita) CO<sub>2</sub> emissions from fossil fuel combustion and cement production</p> <p>In 2018, 0.2 (tCO<sub>2</sub>/capita) CO<sub>2</sub> emissions embodied in imports</p>
13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	NA
13. a: Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	In 2021, Nationally Determined Contribution enhancements, including capacity strengthening, ensure transparency in implementing NDC in the Agriculture, Forestry, and Other Land Use (AFOLU) sector
13. b: Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	In 2021, the draft PNG REDD+ Safeguards and National REDD+ Guidelines and an options paper on carbon ownership and national-level administration of carbon were developed

Target	Current PNG Status
14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	In 2020, the Ocean Health Index: Clean Waters score (worst 0–100 best) was 65.2
14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	<p>The extension of the protected marine area was 4.4 thousand square km in 2018</p> <p>In 2018, 0.2% of the marine environment under national jurisdiction (up to 200 nautical miles from shore) was under protection</p>
14.3: Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	NA
14.4: By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	<p>In 2018, fish caught by trawling or dredging 0.0%</p> <p>In 2018, fish caught from overexploited or collapsed stocks was 5.0% of total catch</p> <p>In 2018, fish caught that were then discarded was 2.6%</p> <p>In 2018, marine biodiversity threats embodied in imports (per million population) 0.0</p>

<p>14.5: By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on the best available scientific information</p>	<p>The average proportion of Marine Key Biodiversity Areas covered by protected areas increased from 1.3% in 2000 to 1.6% in 2019.</p> <p>In 2020, mean area protected in marine sites important to biodiversity was 1.9%</p>
<p>14.6: By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries</p> <p>should be an integral part of the World Trade Organization fisheries subsidies negotiation</p>	<p>NA</p>
<p>14.7: By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism</p>	<p>NA</p>
<p>14. a: Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries</p>	<p>NA</p>
<p>14. b: Provide access for small-scale artisanal fishers to marine resources and markets</p>	<p>NA</p>
<p>14. c: Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"</p>	<p>NA</p>



Target	Current PNG Status
<p>15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements</p>	<p>In 2020, the Ocean Health Index: Clean Waters score (worst 0–100 best) was 65.2 obligations under international agreements</p> <p>In 2020, the mean area that is protected in terrestrial sites important to biodiversity was 7.3%</p> <p>In 2018, terrestrial and freshwater biodiversity threats embodied in imports (per million population) 0.0</p> <p>The proportion of land area covered by forest was 80.1% in 2000 compared with 79.2% in 2020.</p> <p>The average proportion of terrestrial key biodiversity areas covered by protected areas was 6.9% in 2019, compared with 6.8% in 2000</p>

<p>15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally</p>	<p>In 2020, permanent deforestation (% of forest area, 5-year average) was 0.1%</p> <p>Above-ground biomass stock in the forest was 176.0 tonnes per hectare in 2020</p> <p>Forest area under an independently verified forest management certification scheme increased from 4.3 thousand ha in 2000 to 36.7 thousand ha in 2019</p> <p>The annual net change rate of forest area reached 0.1% in 2020</p> <p>The proportion of forest area under a long-term management plan was 14.0% in 2020</p> <p>The proportion of forest area within legally established protected areas was 3.8% in 2020</p>
<p>15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world</p>	<p>The proportion of land that is degraded over the total land area was 21.0% in 2015</p>
<p>15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development</p>	<p>The average proportion of Mountain Key Biodiversity Areas covered by protected areas was 6.7% in 2019</p> <p>The Mountain Green Cover Index was 98.3 in 2017</p>
<p>15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species</p>	<p>Red List Index of species survival (worst 0–1 best) declined from 0.9 in 1993 to 0.8 in 2021</p>
<p>15.6: Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed</p>	<p>The total number of Standard Material Transfer Agreements transferring plant genetic resources for food and agriculture to the country increased from 4.0 in 2012 to 16.0 in 2019</p>
<p>15.7: Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products</p>	<p>NA</p>
<p>15.8: By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species</p>	<p>NA</p>
<p>15.9: By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts</p>	<p>NA</p>
<p>15. a: Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems</p>	<p>The total amount received in assistance for biodiversity increased from \$0.3 million in 2002 to \$191.4 million in 2018.</p>
<p>15. b: Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation</p>	<p>The total amount received in assistance for biodiversity increased from \$0.3 million in 2002 to 191.4 million in 2018</p>
<p>15. c: Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities</p>	<p>NA</p>

Target	Current PNG Status
16.1: Significantly reduce all forms of violence and related death rates everywhere	In 2010, 9.8 homicides per 100,000 population
16.2: End abuse, exploitation, trafficking, and all forms of violence against and torture of children	NA
16.3: Promote the rule of law at the national and international levels and ensure equal access to justice for all	Un-sentenced detainees (% of prison population) 37.8% in 2018 compared with 31.3% in 2005
16.4: By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime	<p>In 2020, exports of primary conventional weapons 0.0 TIV constant million USD per 100,000 population</p> <p>Not a party to the UN Convention Against Transnational Organized Crime and its protocols (Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women, and Children; the Protocol against the Smuggling of Migrants by Land, Sea, and Air; and the Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition)</p>
16.5: Substantially reduce corruption and bribery in all their forms	<p>Gaps in the implementation of the United Nations Convention Against Corruption</p> <p>In 2021, 54% of respondents paid a bribe to get a service in the public sector in the past 12 months</p> <p>In 2015, the proportion of firms experiencing at least one bribe payment request was 26.4%</p>
16.6: Develop effective, accountable, and transparent institutions at all levels	Primary government expenditures as a proportion of the original approved budget reached 96.0% in 2013
16.7: Ensure responsive, inclusive, participatory, and representative decision-making at all levels	NA
16.8: Broaden and strengthen the participation of developing countries in the institutions of global governance	NA
16.9: By 2030, provide legal identity for all, including birth registration	In 2020, birth registrations with civil authority were for only 13.4% of children under the age of five years
16.10: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	Press Freedom Index is 75.2 for 2021 and 66.6 for 2022 (best 0 – 100 worst)
16. a: Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime	NA
16. b: Promote and enforce non-discriminatory laws and policies for sustainable development	NA

Target	Current PNG Status
<p>Finance</p> <p>17.1: Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection</p>	<p>Government spending on health and education (% of GDP) 3.2 in 2019</p> <p>Government revenue excluding grants (% of GDP) 14.2 in 2019</p> <p>Corporate Tax Haven Score (best 0–100 worst) 0.0 in 2019</p> <p>Total government revenue as a proportion of GDP increased from 18.9% in 2000 to 19.9% in 2018.</p> <p>Relative to GDP, the domestic budget funded by domestic taxes was 64.3% in 2018 compared with 62.7% in 2000</p>
<p>17.2: Developed countries to implement fully their ODA commitments, including the commitment by many developed countries to achieve the target of 0.7 percent of GNI (ODA/GNI) to developing countries and 0.15 to 0.20 percent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 percent of ODA/GNI to least developed countries</p>	<p>NA</p>
<p>17.3: Mobilize additional financial resources for developing countries from multiple sources</p>	<p>FDI increased from \$155.4 million in 1990 to \$335.2 million in 2018</p> <p>In 2018, the inflow of personal remittances was 0.0 1% of GDP compared with 0.03% in 2010</p>
<p>17.4: Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress</p>	<p>Debt service as a proportion of exports of goods and services was 1.7% in 2018 compared with 1.4% in 2010</p>
<p>17.5: Adopt and implement investment promotion regimes for least developed countries</p>	<p>NA</p>
<p>Technology</p> <p>17.6: Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism</p>	<p>Fixed-broadband internet penetration reached 0.0 per 100 inhabitants in 2008 to 0.2 per 100 in 2017</p>
<p>17.7: Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed</p>	<p>NA</p>
<p>17.8: Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology</p>	<p>The number of Internet users per 100 inhabitants increased from 0.8 in 2000 to 11.2 in 2017</p>
<p>Capacity-building</p> <p>17.9: Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the SDGs, including through North-South, South-South and triangular cooperation</p>	<p>The total gross disbursement of ODA for technical cooperation at constant prices in 2018 increased from \$187.4 million in 2000 to \$278.8 million in 2018</p>

<p>Trade</p> <p>17.10: Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda</p>	<p>The worldwide weighted tariff average for countries with the most-favoured-nation status increased from 2.0% in 2005 to 3.5% in 2015</p> <p>The worldwide weighted tariff average for countries with preferential status increased from 2.0% in 2005 to 3.5% in 2015</p>
<p>17.11: Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020</p>	<p>NA</p>
<p>17.12: Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access</p>	<p>The average most-favoured-nation status tariff applied by developed countries was 0.9% in 2018</p> <p>Developed countries' average preferential status tariff declined from 0.3% in 2000 to 0.2% in 2018</p>
<p>Systemic issues</p> <p>Policy and institutional coherence</p> <p>17.13: Enhance global macroeconomic stability, including through policy coordination and policy coherence</p>	<p>NA</p>
<p>17.14: Enhance policy coherence for sustainable development</p>	<p>NA</p>
<p>17.15: Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development</p>	<p>NA</p>
<p>Multi-stakeholder partnerships</p> <p>17.16: Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the SDGs in all countries, in particular developing countries</p>	<p>NA</p>
<p>17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p>	<p>NA</p>
<p>Data, monitoring and accountability</p> <p>17.18: By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts</p>	<p>Statistical Performance Index (worst 0 - 100 best) 40.8 in 2019</p>
<p>17.19: By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement GDP, and support statistical capacity-building in developing countries</p>	<p>The value of all available resources to strengthen statistical capacity in developing countries was \$921,400 in 2017.</p>



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