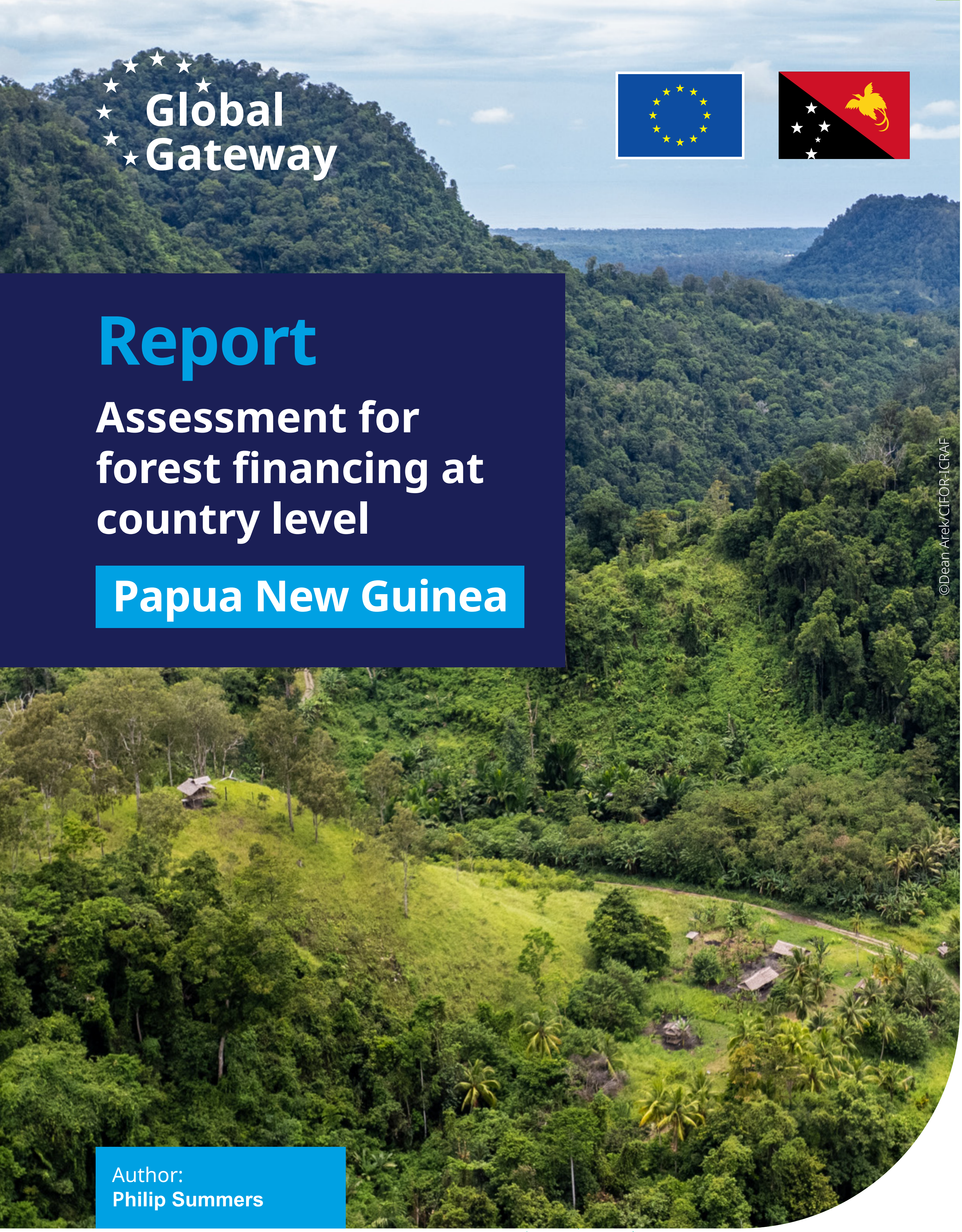

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Global Gateway

Report

Assessment for forest financing at country level

Papua New Guinea

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August 2025

The EU-funded Forests for the Future Facility (F4F) provides technical support to contribute to healthy forest ecosystems and forest-related value chains in Asia, Africa, the Caribbean and Latin America. The Facility is managed by DG International Partnerships Unit F2 – Environment, Natural Resources, Water.

F4F is working in collaboration with CIFOR-ICRAF on the Forest Finance Assessment reports.

Assessment context

This assessment of existing forest financing instruments at country level operates as the foundation for a proposed EU-funded Action 'Financing for Forest' FFF.

The Action intends to boost financing for forests at global level, by generating and sharing knowledge widely. In selected partner countries, technical assistance (TA) for the implementation of specific forest finance solutions/instruments will be provided. Prior the Action, an assessment is carried out in up to 15 countries to 1) help define which forest finance solutions will be tested and piloted and in selected countries (up to 7 countries will be selected for the Action "Financing for Forest"), 2) help EU Delegations (EUDs) and partners in other countries get a better understanding of existing financing mechanisms, and 3) generate knowledge about selected financial solutions/instruments.

As a preparatory step for the proposed EU-funded Action "Financing for Forests" (FFF), an assessment of forest financing instruments has been carried out in 11 partner countries. Implemented by CIFOR-ICRAF under the Forests for Future Facility (F4F) between February-October 2025, this assessment provides an overview of existing and innovative mechanisms that can enhance the mobilisation of finance for sustainable forest management.

Disclaimer

This publication was produced with the financial support of the European Union. Its contents do not necessarily reflect the views of the European Union.

This assessment has been developed based on consultations with stakeholders and inputs from subject matter experts. It is important to note that the findings and recommendations presented herein do not necessarily reflect the official forest finance priorities or the positions of the national government.

The content is intended to provide insights and support discussions in the context of forest finance but should not be interpreted as an endorsement of any specific policy or strategy.

Project implemented by:

Lead company

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Acronyms list

Acronym	Meaning
ADB	Asian Development Bank
ART-TREES	Architecture for REDD+ Transactions – The REDD+ Environmental Excellence Standard
AUD	Australian Dollar
B	Billion
BCF	Papua New Guinea Biodiversity and Climate Fund
CBD	Convention on Biological Diversity
CCDA	Climate Change and Development Authority of Papua New Guinea
CEPA	Papua New Guinea Conservation and Environment Protection Authority
CO2e	Carbon dioxide equivalent
DFI	Development Finance Institution
DNPM	Papua New Guinea Department of National Planning and Monitoring
EIB	European Investment Bank
ESG	Environmental, Social and Governance
EU	European Union
EUDR	European Union Deforestation Regulation
EU-FCCB	European Union-funded Forestry-Climate Change-Biodiversity Programme
FAO	Food and Agriculture Organization of the United Nations
FSC	Forest Stewardship Council
GCF	Green Climate Fund
GEF	Global Environment Facility
GFC	Green Finance Centre Papua New Guinea
GGGI	Global Green Growth Institute
ha	Hectare
ITTO	International Tropical Timber Organization
JICA	Japan International Cooperation Agency
LCOP	Papua New Guinea Logging Code of Practice
LNG	Liquefied Natural Gas
M	Million
MRV	Monitoring, Reporting and Verification
MTDP IV	Papua New Guinea Medium Term Development Plan IV (2023–2027)
NBSAP	Papua New Guinea National Biodiversity Strategic Action Plan 2019-2024
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organisation
NWFP	Non-wood forest product
PAFIP	Papua New Guinea Protected Area Finance and Investment Plan
PES	Payments for Ecosystem Services
PGEN	Pacific Green Entrepreneurs Network
PGK	Papua New Guinean Kina
PNG	Papua New Guinea
PNGFA	Papua New Guinea Forest Authority
PPA	Papua New Guina's Policy on Protected Areas
NRS	Papua New Guinea National REDD+ Strategy 2017-2027
RBP	Results-based payment

Acronym	Meaning
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RIL	Reduced Impact Logging
RSPO	Roundtable on Sustainable Palm Oil
SDG	Sustainable Development Goal
SMEs	Small and medium enterprises
t	Tonne
UNDP	United Nations Development Programme
UN-REDD	United Nations-Reducing Emissions from Deforestation and Forest Degradation
USD	United States Dollar

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Introduction

The current assessment was conducted for the Financing for Forests program and aims to provide individual overviews of existing and innovative forest financing mechanisms across 15 countries to inform future European Union (EU) investments and partner country strategies. CIFOR-ICRAF and F4F jointly commissioned it in April 2025 and will result in a consolidated global report available to EU Delegations.

This report, prepared by Philip Summers in Q1-3 2025, assesses the landscape of forest finance in Papua New Guinea (PNG) to analyse the country's current financing flows for the forest sector, identifying investment gaps and evaluating the effectiveness and scalability of forest finance instruments. The approach to preparing this report involved document reviews, stakeholder consultations (over 30 interviews with key stakeholders), a roundtable discussion with government and development partner representatives and work investigating alignment with international frameworks such as the Sustainable Development Goals (SDGs), Paris Agreement and Global Biodiversity Framework, as well as PNG's Nationally Determined Contributions (NDCs).

2

Overview of the forest sector and performance gaps

Summary

PNG's extensive forests are globally significant for their scale (35.89m ha), diversity and low levels of disturbance (26m ha undisturbed)[1]. They are key to the informal rural economy on which some 85% of PNG's population relies, providing bush meat, other foods, medicine, building materials and fuel wood. The annual value of these products is an estimated 1-2 billion PGK (USD 250-500 million)[2] but is largely unreported and poorly recognised in formal policy or planning documents.

PNG's forests and terrestrial habitats also represent a unique biological resource with endemism estimated to exceed 30%. Yet less than 4% of this terrestrial area is also currently under the formal protected areas network, with just 15% of PAs receiving any regular budget or support from the central government. Significant gaps exist in the capacity of the Conservation and Environmental Protection Agency (CEPA) to support further conservation efforts, sustain existing ones, or effectively monitor development activities within forest areas.

PNG's forest industries in the formal sector are dominated by round log export-oriented timber extraction, primarily destined for Chinese markets (90% of exports[3]). The sector has a chequered reputation, with a history of poor levels of compliance, tax evasion, and malpractice. Estimates of the levels of transfer pricing in the timber industry alone are estimated to cost the GoPNG between PGK 100 and 400 million (approximately $ 25-100 million) per annum. The industry has also proven resilient to successive efforts at reform, with over 40% of timber still sourced from concessions that pre-date the 1991 Forestry Act and sector reform. In addition, some 33% of logs exported are sourced from agriculture-linked Forest Clearance Authorities (FCAs) that increased in prevalence as restrictions on new timber concessions increased. Many, however, show limited evidence of corresponding agricultural developments[4].

Government efforts to halt round log export and drive the industry towards downstream processing[5] through high log export taxes (reaching 70% of stated FoB in 2023) and tax concessions for processing and plantation development have had a limited impact, with just 5-10% of exports being processed and 2% coming from plantations. Tax increases combined with other economic drivers have instead resulted in a 50% contraction in industry operations between 2018 and 2024, as well as a fragmentation of producers.

This contraction, combined with potential for forest carbon finance and increased constraints on timber exports and agricultural production from deforested land, provides a small window of opportunity for positive transitions. Decreases in export duty in 2024 and ongoing fiscal pressures on the government, however, may indicate how limited this window may be.

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1 GoPNG (2023) *Second National REDD+ Forest Reference Level* – available at https://redd.unfccc.int/files/png_2nd_frl_final.pdf

2 See estimates of value developed in section 2 below

3 Information from SGS log export monitoring reports available at https://pngforests.com/sgs/

4 Forest Trends (2021) *Illicit Harvest, complicit goods: The State of Illegal Deforestation for Agriculture*. Forest Policy and Trade, ActNow (2025) The FCA Logging Scandal. Available at https://www.forest-trends.org/wp-content/uploads/2021/05/Illicit-Harvest-Complicit-Goods_rev.pdf

5 Stated objectives of the GoPNG in MTDP 4 as well as a number of policy statements

Table 1. PNG Forests Key Indicators

Forest Indicator	PNG Status (2024)
Forest coverage	77.8% of land area (~35.89 million hectares)[6]
Area under concessions[7]	Total area: Estimated over 13m ha if FCA included, 12m ha without FCAs Area which exported timber 2019-2022: Estimated 8m ha without FCA, 7m ha with FCA
Area under plantation[8]	56,000ha 21,000ha PNGFA managed 35,000ha private
Area under certification[9]	44,143ha – all plantation areas across three companies.
Contribution to GDP	2-4% via forestry and forest-based industries, almost entirely through round log export.[10]
Forest jobs	~10,000 formal; up to 50,000 informal[11]
Biodiversity[12]	Endemism estimated to exceed 30 Estimated 150,000 species of insects, 314 species of freshwater fishes (82 endemic), 641 species of amphibians and reptiles (328 endemic), 740 species of birds (77 endemic), and 276 species of mammals (69 endemic).
GHG Emissions[13]	25mtCO2e 2018 down from 39mtCO2e in 2015
Protected Area	1,702,400ha - terrestrial PAs are less than 4% of the land area[14].
Livelihoods	80%+ of the population rely on forests for subsistence
Value forest resources in the informal economy	1-2 billion PGK per annum[15]

PNG is one of the most extensively forested countries in the world, with forest ecosystems covering 77.8% of its land area, or around 35.89 million hectares (ha), of which over 75% (26m ha) is categorised as undisturbed[16]. PNG's forests are also ecologically diverse, with 17 different forest types that include globally significant biodiversity. Endemism is estimated to exceed 30% with an estimated 150,000 species of insects, 314 species of freshwater fishes (82 endemic), 641 species of amphibians and reptiles (328 endemic), 740 species of birds (77 endemic), and 276 species of mammals (69 endemic)[17].

Forests play an essential role in PNG's socio-economic and environmental systems, providing critical ecosystem services that support agriculture and climate resilience. They also hold a high level of cultural significance to PNG's rural communities, which account for close to 85% of the 11-12 million population[18]. As an economic safety net, forests provide protein through bush meat, as well as medicines, building materials, and fuel wood. These elements primarily belong to PNG's large and poorly documented informal economy. In 2016, estimates suggested that the annual value of bushmeat, assuming equivalent protein is sourced from the market, was around 100 million PGK (approximately USD 26 million). Additionally, estimates of domestic demand for timber for housing indicate that the volume could range between 400,000 and 800,000 m^3 per annum, with a corresponding retail value of 1 to 2 billion PGK (roughly USD 250 to 500 million).e economy for fuelwood is similarly significant with potential values of 400-500m PGK (100-125m USD) per annum based on average household use of 1.8 m^3 per person per year and market values of 1m^3 of fuel wood of PGK 30-60 per annum[19].

6 GoPNG (2022) Second Forest Reference Level p35 available at https://redd.unfccc.int/files/png_2nd_frl_final.pdf

7 Data based on author compiled information on concession areas with individual site information sourced from range of sources. Confirmation of activity of concessions based on SGS reporting.

8 Information based on PNGFA data unpublished and information sourced from plantation companies.

9 Information from FSC - https://search.fsc.org/en/

10 Based on authors own calculations and in line with estimates from WB (2025) Forest Sector background note unpublished.

11 Estimate based on ITS (2006) The Economic Importance of the Forestry Industry to Papua New Guinea available at https://www.fiapng.com/The%20Economic%20Importance%20of%20Forestry%20to%20PNG.pdf
Business Advantage PNG (2019) Forestry in Papua New Guinea: a sector profile available at https://www.businessadvantagepng.com/forestry-in-png-a-sector-profile/

12 CBD Country Profile Papua New Guinea - https://www.cbd.int/countries/profile?country=pg#:~:text=Papua%20New%20Guinea%20harbors%20a%20rich%20array,and%20276%20species%20of%20mammals%20(69%20endemic).

13 GoPNG (2023) Second National REDD+ Forest Reference Level available at https://redd.unfccc.int/files/png_2nd_frl_final.pdf

14 Data from https://www.protectedplanet.net/en

15 See calculations in Section 2 p2 above

16 GoPNG (2023) *Second National REDD+ Forest Reference Level* – available at https://redd.unfccc.int/files/png_2nd_frl_final.pdf

17 CBD Country Profile Papua New Guinea - https://www.cbd.int/countries/profile?country=pg#:~:text=Papua%20New%20Guinea%20harbors%20a%20rich%20array,and%20276%20species%20of%20mammals%20(69%20endemic).

18 Data based on 2011 census projections but is noted to be high contested https://www.dfat.gov.au/geo/papua-new-guinea/papua-new-guinea-country-brief#:~:text=Papua%20New%20Guinea%20(PNG)%20has,region)%20are%20the%20official%20languages. And https://www.abc.net.au/news/2024-06-30/papua-new-guinea-png-census-population-be-counted/104026078

19 Total values developed by the author with figures adapted from multiple sources including ACAIR (2022) *Enhancing value-added wood processing in Papua New Guinea*, ACIAR Final Report FST/2006/088

Within the formal economy, the sector contributes 2-4% to Gross Domestic Product (GDP)[20] through timber exports and forest-based industries. The industry is dominated by round log export, which accounts for over 90% of timber exports, of which 90% are destined to China, with these exports coming from production in nine of PNG's 20 provinces and one autonomous region in 2023, down from 12 in 2022 (see Table 4 below)[21].

Box 1. Key agencies for forest governance

Papua New Guinea Forest Authority – has the mandate for the management of forests but focused within areas under concessions. Currently seeking to revise legislation to broaden scope beyond timber.

Conservation and Environmental Protection Authority – Mandate for the protection and conservation of the environment including forests.

Climate Change and Development Authority – mandate for the measurement reporting and regulating of GHG emissions, including the regulation of trade in carbon credits.

Significant export duties (that have increased from below 30% to over 50%) combined with other levies and royalties generate PGK 300-400m (90-130m USD) in export duty pa with a further PGK 150-200m (40-50m USD) allocated for PNGFA (see Table 4), a further PGK 100-130m (25-32m USD) is generated through a complex set of 15 fees and levies and royalties for landowners and subnational governments– making the industry and important player within the rural economy and politics of PNG.

There exist, however, significant challenges in the industry with low levels of compliance with environmental and social standards, as well as discrepancies in the way finances are reported and distributed. Estimates of the impacts of transfer pricing alone range between PGK100 and 400m (25-100m USD) pa[22]. Commercial logging is also the primary cause of forest degradation, accounting for an estimated 98.1% of total forest degradation and linked to GHG emissions[23].

20 Papua New Guinea Forest Sector Engagement Note. (2024). World Bank Environment, Natural Resources and Blue Economy Global Practice. Unpublished report.

21 Data on log exports developed from SGS Annual log export monitoring reports available at - https://pngiforests.org

22 UNODC, (2025) *Global Analysis on Crimes that Affect the Environment – Part 2a: Forest Crimes: Illegal deforestation and logging* (United Nations publication, 2025) provides higher value while WB (2025) unpublished report on timber trade provides a lower estimate,

23 GoPNG (2022) PNG's Second Forest Reference Level

Table 2. Levels of log export, FoB value and tax/levy value[24]

Year	Volume exported (m3)	Value FOB (USD)	Value FOB (PGK)	Total value in taxes and levies (PGK)	Total value in taxes and levies (USD)	Percentage FOB in Taxes and levies
2023	2,260,752	195,123,666	682,597,136	490,497,694	140,211,119	72%
2022	3,062,871	303,042,016	1,039,037,942	595,933,012	173,807,648	57%
2021	2,786,624	270,471,808	925,251,826	535,254,827	156,466,960	58%
2020	2,891,135	270,153,051	911,586,330	523,209,048	155,055,551	57%
2019	3,793,770	375,919,962	1,245,933,528	567,281,188	171,158,668	46%

Table 3. Breakdown of taxes and levies on log exports[25]

Year	Export Tax (PGK)	Forest Development Levy (PGK)	Forest Management Levy (PGK)	Reforestation levy (PGK)	Provincial government (PGK)	District (PGK)	LLG (PGK)	Land owners (PGK)
	Consolidated revenue (av rate increased from 33% 2019 to 51% in 2023)	Subnational Government (PGK 8 per m^3)	PNGFA (PGK1 per m^3)	PNGFA (PGK 2 per m3)	PA (PGK 2 per m^3)	DA (PGK 8 per m^3)	LLG (PGK1.5 per m^3)	LO (PGK 40 per m^3 (20 for Royalty, av 20 across 15 additional levies)
2023	349,554,210	17,732,500	2,260,752	4,521,504	4,521,504	18,086,016	3,391,128	90,430,080
2022	466,408,635	23,855,327	3,062,871	6,125,742	6,125,742	24,502,968	4,594,307	61,257,420
2021	417,250,736	21,865,563	2,786,624	5,573,248	5,573,248	22,292,992	4,179,936	55,732,480
2020	400,900,404	22,564,486	2,891,135	5,782,270	5,782,270	23,129,080	4,336,703	57,822,700
2019	406,890,958	29,505,165	3,793,770	7,587,540	7,587,540	30,350,160	5,690,655	75,875,400

Note: levels of export tax increased significantly from 2014 where average export duty was 27% to 2019 where is was at 33% raising to 51% in 2023, with a headline rate of 70% - which was reduced again to 50% in 2024 – how the 70% rate was applied and what levels of exemptions were allowed is not clearly recorded with above figures showing overall rates of duty collection.

24 Data in tables compiled from SGS Log export reporting https://pngiforests.org

25 Data on relative tax and levy rates adapted from Jenkin et al (2020) *The prospects and markets for Papua New Guinea timber products post log exports and plantation development*. (UNDP FCPF) unpublished

Table 4. Volumes of timber exported by province and the corresponding value of levies to the subnational government[26]

Row Labels	Sum of 2022 (m3)	Provincial (K2 per m3)	District (K8 per m3)	LLG (K2 per m3)	Land holders (K20 per m3)
Bougainville		-	-	-	-
Central	151,340	302,680	1,210,720	227,010	3,026,800
E. Highlands		-	-	-	-
E. Sepik	99,123	198,246	792,984	148,685	1,982,460
E.N. Britain	649,028	1,298,056	5,192,224	973,542	12,980,560
Enga		-	-	-	-
Gulf		-	-	-	-
Madang	78,237	156,474	625,896	117,356	1,564,740
Manus	2,439	4,878	19,512	3,659	48,780
Milne Bay	120,635	241,270	965,080	180,953	2,412,700
Morobe	80,944	161,888	647,552	121,416	1,618,880
New Ireland	442,796	885,592	3,542,368	664,194	8,855,920
Northern (Oro)	139,559	279,118	1,116,472	209,339	2,791,180
S. Highlands		-	-	-	-
W. Highlands		-	-	-	-
W. Sepik	44,1049	882,098	3,528,392	661,574	8,820,980
W.N. Britain	54,9593	1,099,186	4,396,744	824,390	10,991,860
Western	22,5312	450,624	1,802,496	337,968	4,506,240
Grand Total	**2,980,055**	**5,960,110**	**23,840,440**	**4,470,083**	**59,601,100**

Formal protection of PNG's forests is also limited within the context of PNG's Protected Areas (PA) Network, which covers just under 4% of the country's land area or 1.7m ha (for context, if all logging concessions implemented the required 10% set aside of gross area for conservation stipulated in FMA agreements, this would be 1.2mha).

Despite their value, PNG's forest resources thus remain underfunded, poorly monitored and highly vulnerable to unsustainable exploitation. The government's *Medium Term Development Plan IV (2023–2027)* (MTDP IV) acknowledges significant gaps in forest governance, enforcement capacity and sustainable land use planning. Fragmented institutional coordination and limited public investment undermine the implementation of national strategies such as the National Reducing Emissions from Deforestation and Forest Degradation (REDD+) Strategy, which requires an estimated USD130m annually to be effectively operationalised[27][28]. Weak linkages between national targets and subnational implementation, along with unclear land tenure documentation, and constrained access to climate finance have all hindered investment in sustainable forest management, conservation and restoration efforts[29].

Table 5 below presents an assessment of PNG's national targets from forest policy and action plans as they relate to forestry, biodiversity and climate, including an overview of current progress towards these targets.

26 Data on production from SGS Annual log export monitoring reports available at - https://pngiforests.org, data on allocation of revenue based on Jenkin et al (2020) *The prospects and markets for Papua New Guinea timber products post log exports and plantation development.* (UNDP FCPF) unpublished

27 Department of National Planning and Monitoring (2023). *Medium Term Development Plan IV 2023-2027.* National Capital District, Papua New Guinea: Department of National Planning and Monitoring.

28 Government of Papua New Guinea (2017). *Papua New Guinea National REDD+ Strategy 2017-2027.* National Capital District, Papua New Guinea: Government of Papua New Guinea, Climate Change and Development Authority (CCDA).

29 PNG Ranked 120 out of 190 countries in the WB's Ease of Doing Business assessment in 2020 – challenges in mobilizing land for forestry projects and securing long term land based investments are also significant presenting a challenge to attracting private investment in the forest sector.

Table 5. Assessment of PNG's forest sector key targets and progress

Key targets	Sub-targets and actions	Progress toward target	Target source
Forestry			
End forest degradation from commercial logging	Reduce primary forest depletion rate from 9% to 6.5% by 2027	No clear definition of depletion rate provided	*PNG Medium Term Development Plan IV 2023-2027*
	Total round log export ban by 2027	Only 3.6% decrease in round log exports in 2021[30] Average round log exports 2021-2023 2.7million m3[31]	*PNG Medium Term Development Plan IV 2023-2027*
	Establish 800,000 ha of forest plantation by 2050	• ~60,000 ha planted between 1980's and 2015, targeting 20,000 ha more by 2030 (still leaves 720,000 ha in the next 20 years)[32] • PGK 40M stated to be spent between 2023-2027 on reforestation[33]	*PNG Medium Term Development Plan IV 2023-2027* *PNG National REDD+ Strategy 2017-2027*
Sustainable timber harvesting	Timber sourced from plantations and managed (not virgin) forests	No new plantations for timber in the past 10 years – exports from plantations make up just 2% of exports.	*PNG Development Strategic Plan 2010-2030*
	Establish baseline data, regulations and policies to manage and monitor progress	• PGK 12M stated to be spent between 2023-2027[34] • Progress on development of forest cover assessment and forest types through National Forest Monitoring System and Forest Reference Level process[35] • Establishment of a PNG national Timber Legality Standard and progress towards establishing a Timber Legality Verification System. • *The FSC National Forest Stewardship Standard of Papua New Guinea* approved in 2017 and effective from 2019[36] - yet only plantation areas (44,130ha) are currently certified with no natural forest concession under FSC[37].	*PNG Development Strategic Plan 2010-2030* *PNG Medium Term Development Plan IV 2023-2027* *PNG National Climate Compatible Development Management Policy*

30 PNGi Central. (2021). Latest 2021 log export data revealed. [online] Available at: https://pngicentral.org/reports/latest-2021-log-export-data-revealed/.

31 SGS Annual log monitoring reports available at https://pngforests.com/sgs/

32 Authors own data based on engagement with multiple parties and knowledge of operations of existing plantation estates.

33 GoPNG (2025) Fourth Medium Term Development Plan

34 Ibid

35 GoPNG (2023). Second Forest Reference Level – available at https://redd.unfccc.int/files/png_2nd_frl_final.pdf

36 Forest Stewardship Council (2017). *The FSC National Forest Stewardship Standard of Papua New Guinea*. Bonn, Germany: Policy and Standards Committee of FSC.

37 FSC certified areas under management by three companies Stettin Bay Lumber, Open Bay Timbers and 3a Composites (balsa) – Stettin Bay accounts for over half the certified area - sourced from https://fsc.org/en

Key targets	Sub-targets and actions	Progress toward target	Target source
Increase value of forest products	Refocus to downstream processing and increase share of processed timber exports to 80% by 2030	• Processed timber exports approximately 10% of timber exports, although data is not fully reported[38].	*PNG Development Strategic Plan 2010-2030* *PNG Medium Term Development Plan IV 2023-2027*
	Develop five forestry hubs around the country dedicated to processing (three by 2027)	• PGK 350M stated to be spent between 2023-2027 on hubs[39] • Only PGK 5M spent in 2023-2024 and no spending projected for 2025-2028[40] • No hubs in operation.	*PNG Medium Term Development Plan IV 2023-2027*
Biodiversity			
Maintain and protect biodiversity	17% of terrestrial environment conserved by 2020 (Aichi Target 11; now 30% by 2030 under Kunming-Montreal Global Biodiversity Framework Target 3)	Only ~4% of land protected as of 2024[41] Discussion occurring on refining definition of areas under managed conservation areas[42].	*PNG National Biodiversity Strategic Action Plan 2019-2024* *PNG Policy on Protected Areas*
	Maintain the current 5-9% of global biodiversity levels	No evidence that biodiversity levels have dropped below 5%[43]	*PNG Policy on Protected Areas*
Expand protected areas	At least one national park in each of nine eco-regions by 2025 (20+ by 2050)	57 protected areas, including five national parks, as of 2024[44]	*PNG Policy on Protected Areas*
Integrate biodiversity into future planning and management	80% of vegetation types protected by 5% by 2020 and 10% by 2025	Only ~4% of land protected as of 2019, unlikely that goal has been met[45]	*PNG Policy on Protected Areas*
	Biodiversity integrated into forest management by 2030, including: • Enhanced Logging Code of Practice (LCOP) by 2025 • *Papua New Guinea National REDD+ Strategy 2017-2027* (NRS) developed by 2022 • Increased capacity of PNG Forest Authority (PNGFA) by 2022 from Food and Agriculture Organization (FAO) funding	• No evidence to suggest LCOP has been updated since 1996 • NRS developed in 2017 • Country Programming Framework developed by FAO in 2018 to be delivered 2018-2022[46]	*PNG National Biodiversity Strategic Action Plan 2019-2024*

38 SGS log export data

39 GoPNG (2025) Fourth Medium Term Development Plan

40 Department of Treasury – Papua New Guinea. (2024). *2024 Annual Budget*. [online] Available at: https://www.treasury.gov.pg/budget/annual-budgets/2024-budget/.

41 Data from https://www.protectedplanet.net/en

42 FAO / CEPA June 2025 comms

43 No comprehensive and recent assessment but based on information from CBD Country Profile Papua New Guinea - https://www.cbd.int/countries/profile?country=pg#:~:text=Papua%20New%20Guinea%20harbors%20a%20rich%20array,and%20276%20species%20of%20mammals%20(69%20endemic) and https://environment-climate.png-nrmhub.org/?utm_source=chatgpt.com#recommendations

44 Data from https://www.protectedplanet.net/en

45 Ibid

46 Food and Agriculture Organization of the United Nations (2018). *Country Programming Framework for Papua New Guinea 2018 to 2022.*

Key targets	Sub-targets and actions	Progress toward target	Target source
Climate			
Reduce greenhouse gas (GHG) emissions from deforestation	Emissions (from agricultural clearing and logging) reduced by 10,000 gigagrams (10,000 kilotonnes) carbon dioxide equivalent (CO_2e) by 2030 (from 2015 baseline)	PNG has achieved reductions of over 10,000gigagrams against its linear FRL (ongoing increases in emissions based on a future linear projection in the trend of historical emissions)[47].	*PNG's Enhanced Nationally Determined Contribution 2020*
	Carbon neutral by 2050	PNG reports as a net GHG sink due to high absorption for forest regrowth[48]	*PNG's Enhanced Nationally Determined Contribution 2020* *PNG National REDD+ Strategy 2017-2027* *PNG's REDD+ Finance and Investment Prospectus*
Enhance climate change resilience of forests	Climate change framework implemented by 2022	Development of *Climate Change (Management) Act 2023* and *Climate Change (Management) Carbon Markets Regulation 2024 (not yet gazetted)*	*PNG National Biodiversity Strategic Action Plan 2019-2024*
	Improved understanding of climate science and impacts and consideration of these in management, as well as strengthened capacity of management agencies such as PNGFA, by 2030	Significant support in place to support understanding although complexity of PNG makes country wide projections difficult. Literacy across decision makers remains limited[39]	*PNG National Biodiversity Strategic Action Plan 2019-2024*

47 GoPNG (2023). Second Forest Reference Level – available at https://redd.unfccc.int/files/png_2nd_frl_final.pdf

48 GoPNG (2022) PNG Biennial Update report 2 https://unfccc.int/documents/490300

3

Assessment of current levels of finance and investment into the forest sector, and identification of finance and investment gaps

Summary

PNG's forest sector is underfunded, fragmented and heavily dependent on international aid. There are weak linkages between stated policy or strategic targets and budget planning and implementation, with sector agency budget use largely opaque[49, 50].

Overall, the annual investment gaps between the current status quo and the delivery of national and international policy commitments are estimated to be between PGK 520 million and PGK 700 million, depending on the baseline data and specific targets used. This estimate is based on combining assessments from the National REDD+ Investment Plan, Protected Areas Finance and Investment Plan, AFOLU Roadmap, and private sector-based assessments of plantation development costs, along with value updates to 2025. The National REDD+ Investment Plan in 2019 indicated an average investment need of over PGK 1 billion (USD270m) pa over ten years, with a shortfall of over PGK 520m (USD130m) pa for investments across sustainable land use planning, enhanced forest and plantation management, environmental enforcement and protection, sustainable agriculture and REDD+ program coordination[51]. A similar assessment focused solely on the protected areas (PA) network indicated that just 15% of PAs currently receive any finance, and to meet the 30% Kunming-Montreal targets would require investment of close to PGK 520m (USD130) per annum.

These estimates, however, must be treated with extreme caution and require a significant assessment of the specificity of targets and how they are achieved. For example, data on per-hectare plantation establishment costs in the private sector, when applied to PGK's reforestation target, would equate to a shortfall of PGK 560 million per annum over the next 25 years.

Efforts to address financing gaps and support sustainable forest finance have seen progress in three of the nine financing solutions assessed with the current analysis:

- *Carbon Markets* – Active: PNG has received significant support for REDD+ through development partner programmes and recently received PGK 256m (USD 64) in Results-Based Finance from the GCF for 2014-16 emission reductions. The country is currently developing a jurisdictional proposal under the ART-TREES framework for the periods 2017-2021 and 2022-2026, with the potential to raise over PGK 400 million per annum, depending on market access. A number of site-based REDD+ projects have also been developed, but have a history of poor performance.
- *Forest Funds* – Active - PNG is seeking to access the Tropical Forest Forever Fund (TFFF), which could provide financing in the region of PGK 400m per annum (USD 100 m). Domestically, PNG has established the Biodiversity Climate Fund under the UNDP GEF6 project. This fund is scheduled to become independent in mid-2026 and has the potential to act as a key independent conduit of finance if sufficiently capitalised.
- *Finance instruments for Value chains* – Active – Multiple strands of work are operational, including

49 Papua New Guinea Forest Sector Engagement Note. (2024). World Bank Environment, Natural Resources and Blue Economy Global Practice. Unpublished report.

50 Department of Treasury – Papua New Guinea. (2024). *2024 Annual Budget*. [online] Available at: https://www.treasury.gov.pg/budget/annual-budgets/2024-budget/.

51 Government of Papua New Guinea and REDD+ Papua New Guinea. (2021). *Papua New Guinea REDD+ Finance and Investment Prospectus (RFIP)*. Port Moresby, Papua New Guinea: United Nations Development Programme.

PNG's timber legality standard, and a domestic FSC standard – although there is limited uptake. Within agriculture, the largest oil palm producers are RSPO certified, and work is being developed for enhanced certification in cocoa and coffee value chains.

- *Impact Finance / Impact Investment* – not currently active, although with potential for investment linked to carbon and value chains.
- *Public finance* – Not active – no budget tagging or forest-specific public finance measures are in place. Actions are being undertaken to develop a green finance taxonomy that can be expanded to the public sector, as well as work on climate-compatible guidance for public investment projects. Further support is needed for the effective integration of forests into budgeting.
- *Debt-for-nature swap* – Not Active – The concept has been presented to Treasury by several development partners, linked to a pending PGK 2b (USD 500 m) Eurobond bullet payment.
- *Green bonds / Sustainability-linked loans* – Not active – some discussion occurring, but limited capacity given PNG's existing public debt profile. Some private operators or the National Energy Authority may have an interest in this.
- *Payment for ecosystem services* – Not active – initial scoping studies have been undertaken, but face challenges, including a lack of a clear buyer for services within the PNG economy and the costs of domestic requirements to value and monitor services.
- *Biodiversity markets* – Not Active – scoping assessments have been developed, and an initial framework for domestic biodiversity offsets has been developed and paused due to challenges in implementing mechanisms and potential overlap with carbon offsetting opportunities.

Implementation of any solutions also face a number of cross cutting challenges including, limited clarity on land tenure and tenure security for commercial operations, complex social and cultural environment, limitations in levels of governance capacity and transparency of decision making and financial management, a challenging business environment both institutionally and operationally, and the volatility of international donor commitments and environmental markets, gaps in data on the status and nature of PNG's forests and the capacity to monitor and report on these.

3.1 Finance and investment into sustainable forest management

3.1.1 Sustainable forest management

PNGFA's budget allocation was PGK 74 million in 2025, up from PGK 67 million in 2024[52]. Forest management falls under central staffing and management allocations, which amount to approximately PGK 60m per annum, of which 75-80% is allocated to staff costs and covers almost all PNGFAs' activities at both national and subnational levels. Exact expenditure by location and field office remains difficult to access, but it is widely recognised that funds are insufficient to meet management and monitoring needs[53]. A Forest Management Levy, intended to support the operations and monitoring of active concessions, is estimated to have generated PGK 2-4 million per annum between 2018 and 2022. However, this forms less than 10% of the proposed PNGFA budget (the budget does provide disaggregated information to specific monitoring or operational functions), which in 2025 stood at over PGK 74m with the Authority being reported to have received 95% of its budget in 2024[54] despite reported delays in budget provision in 2025.

External support has been limited since the 1990s, when significant sector reform, supported by the World Bank, encountered a combination of political and structural challenges that prevented its full implementation. Subsequent support has focused on technical elements, including support to:

- Improved forest management information systems and concession monitoring – financed primarily through JICA but halted at the end of 2024
- Timber legality standard development – sporadic small-scale finance through ITTO
- National REDD+ Process – while not direct implementation support to SFM support included capacity building on forest monitoring, policy and legal development and capacity development (UN-REDD, FCPF)
- National Forest Inventory – EU support to the development and implementation of the National Forest Inventory Programme
- Forest sector support – through the EU-FCCB project, a package of support focused on national policy and institutional issues.

52 GoPNG (2025) 2025 Budget Estimates Volume 2 Part D

53 Chatham House (2014) Illegal Logging in Papua New Guinea available at https://www.chathamhouse.org/sites/default/files/home/chatham/public_html/sites/default/files/20140400LoggingPapuaNewGuineaLawson.pdf and ITTO (2007) Achieving the ITTO Objective 2000 and SFM in Papua New Guinea Report of the Diagnostic Mission – available at https://pngforests.com/wp-content/uploads/2013/05/itto-report-full.pdf

54 GoPNG (2025) Final Budget Outcome Report 2024 – available at https://www.treasury.gov.pg/

Private sector investment in the forest sector is difficult to track, with several international banks (ANZ, Westpac) withdrawing support for the sector due to policies against financing any non-certified timber operations. However, financial channels remain through the BSP and Kina Bank, with estimated credit levels close to PGK 300m[55].

Demand & opportunity

Approval and gazettal of the PNG Timber Legality standard (2023) and progress in engagement and field testing across a small number of companies represent a level of domestic demand for improved practices and progress on SFM. Trials have also been undertaken of reduced impact logging approaches as part of a potential transition to 'low emissions' logging operations. Broader market trends towards requirements for sustainably sourced timber do represent a market driver; however, the level of penetration into the PNG market remains limited. This is compounded by continued structural challenges around taxation levels and the complexities of operating in PNG (limited oversight, remote and high-cost operations).

3.1.2 Wood production and processing

With over 13 million hectares of forest allocated for timber concessions, the sector generates close to USD 130 million annually in export taxes and royalties, with a further USD 20-30 million for subnational governments and landowners, as well as a reforestation levy. These exports are 90% round log exports, with 90% also going to China[56]. The sector suffers from under-pricing, with quoted log export values in PNG estimated to be between log values identified as being 20–46% below global averages and a mirror assessment of PNG-China pricing indicating a 113% difference in value[57]. The discrepancy identified in the 2018-22 data suggests that PNG 'lost' over USD 530 million in revenue during those five years. This challenge has been linked to high tax rates, with total export duties and fees for timber producers accounting for between 50 and 80% of stated log values.

This latter value was linked to increases in log export tax that have been implemented over the past 6 years with increases in average export tax from 21-30% to 35% in 2019, 45% in 2020, and then to 70% in 2023 before falling again to 50% in 2024 – with the increases intended to drive transition to downstream processing – with no export duty payable on processed timber (see Table 3 for further information on the taxation structure).

Despite these efforts and a commitment by the government to spend PGK 350M from 2023–2027[58], there is no evidence of these investments beyond policy statements and a PGK 5m commitment in 2024 to support the development of a State Marketing agency for PNG's timber (PGK 10m in 2025).

PNG is currently receiving support from ADB for the assessment and development of opportunities related to downstream processing and timber market development[59].

Demand & opportunity

There is strong policy demand for transitioning to value-added wood processing to reduce reliance on raw log exports. Finance and investment opportunities include industrial upgrading, processing hubs and export infrastructure linked to verified sustainable timber supply chains. Clear evidence of the additional value of this approach in PNG is, however, limited, and any transition will likely reduce GoPNG income in the short to medium term due to the very high levels of export tax on round log exports.

3.1.3 Restoration or forest plantations

Reforestation efforts are minimal, with just 60,000 ha planted over the past 40 years, but with a highly ambitious goal of 800,000 ha by 2050[60]. Between 2023 and 2027, the government identified PGK 40M to be allocated to reforestation[61]; however, this target is not reflected in PNGFA's annual budget for 2023-25.

55 ActNow (2021) The Money Behind the Chainsaws – available at https://www.jubileeaustralia.org/storage/app/uploads/public/61a/5d9/ce1/61a5d9ce16130650682639.pdf

56 SGS monitoring reports.

57 UNODC, (2025) *Global Analysis on Crimes that Affect the Environment – Part 2a: Forest Crimes: Illegal deforestation and logging* (United Nations publication, 2025) provides higher value while WB (2025) unpublished report on timber trade provides a lower estimate,

58 Department of National Planning and Monitoring (2023). *Medium Term Development Plan IV 2023-2027*. National Capital District, Papua New Guinea: Department of National Planning and Monitoring.

59 Information available at https://selfservice.adb.org/OA_HTML/OA.jsp?OAFunc=XXCRS_CSRN_PROFILE_PAGE&csrnKey=368628D46BD2F-D7368E913409683657235678672164B86DCD82530E177039D4C&fromDER=Y&re-fresh_csrn=true

60 Government of Papua New Guinea (2017). *Papua New Guinea National REDD+ Strategy 2017-2027*. National Capital District, Papua New Guinea: Government of Papua New Guinea, Climate Change and Development Authority (CCDA).

61 Department of National Planning and Monitoring (2023). *Medium Term Development Plan IV 2023-2027*. National Capital District, Papua New Guinea: Department of National Planning and Monitoring.

A reforestation levy is collected from logging companies, which should generate PGK4-7m per annum, but transparency around its use is lacking[62]. An estimated cost from one developer also noted that the cost of establishing a single hectare of plantation can be in the region of PGK 20,000-24,000 (5,000–6,000 USD), making even the proposed PGK 40 million per annum sufficient for only 2,000 hectares per annum in establishment with no maintenance costs or wider organisational costs.

Significant investment is required to scale plantation development, support incentives, and coordinate financing frameworks.

There is some potential in existing operating private and public plantation areas. PNGFA's Bulolo plantation, which provides timber for PNG Forest Products, is a significant revenue source for PNGFA. Spanning over 9,000ha of PNGFA's estimated 21,000ha of plantation estate, the processed timbers are used domestically and exported internationally. In the private sector, Stettin Bay Lumber Company has developed 3,700 hectares of plantation, while Open Bay Timber manages a plantation estate of over 31,000 hectares. Together, these plantations exported 44,190 m^3 of timber in 2023, almost all of which came from Open Bay Timber. The PNG Biomass project has also remodelled its plantation estate as a reforestation/afforestation-based carbon project, planting over 5,000ha.

PNG is currently receiving support through ADB on the assessment and development of opportunities linked to plantation forestry[63].

Demand & opportunity

There is growing recognition of the need for reforestation and plantations to meet timber supply and emissions reduction targets. The GoPNG is highly interested in this process, and private capital and concessional funds could be mobilised to support public-private plantation models with incentives and clearer land tenure frameworks. However, significant challenges remain in the mobilisation of land and ensuring the security of these long-term investments.

62 Author calculation and pers comms with PNGFA May 2025

63 Information available at https://selfservice.adb.org/OA_HTML/OA.jsp?OAFunc=XXCRS_CSRN_PROFILE_PAGE&csrnKey=368628D46BD2F-D7368E9134096836572356786721 64B86DCD82530E177039D4C&fromDER=Y&refresh_csrn=true

3.1.4 Non-wood forest products

Non-wood forest products (NWFPs), including food, medicine and bushmeat, represent important sources of livelihoods, particularly under customary land tenure systems,[64] which cover over 95% of the country. However, data on their use and economic value are limited, despite access to forest resources being noted as a critical social safety net and remaining central to the culture and economy of many areas (see Section 2 for existing value estimates). Despite their ecological and cultural significance and potential to diversify forest-based income streams, formal investment in NWFP value chains is minimal,

Several bio-prospecting and other initiatives have occurred in PNG, but information on these is limited.

Demand & opportunity

Local demand for the commercialisation of NWFPs is strong, particularly for bush products, oils, and medicinal plants. However, this demand lacks coordination and market access. There is potential to invest in processing, certification and trade platforms for NWFPs that would benefit smallholders and support forest conservation. However, general market conditions in PNG (including transport and operating costs) remain a barrier to scaling up activities. Significant challenges remain in the potential scale of domestic markets, access to these markets, and the potential to meet any export level requirements.

3.1.5 Environmental services

There has been significant support for the development of PNG's REDD+ process, historically through the UN-REDD programme and the WB's FCPF programme. Currently, support is also provided through the EU-FCCB project, WB's technical support, and elements of support from ADB, as well as other projects. This support has enabled PNG to make progress in establishing the key frameworks for REDD+ implementation under the UNFCCC, and the country has recently secured USD 64 million in results-based finance from the Green Climate Fund, which will be channelled through FAO in mid-2025. Further work is currently being supported in developing a national submission to ART-TREES and the LEAF Coalitions for financing the 2017-2021 and 2022-2026 periods. Additionally, there is significant interest in developing site-based projects for the voluntary carbon market.

GoPNG's finances to support these actions remain highly limited, and the CCDA remains under pressure to demonstrate its capacity as a revenue-generating authority rather than relying on central government finance. The authority's budget has been cut by almost 50% between 2024 and 2025, with PGK 14m allocated in 2025, of which around 65% is for salaries[64].

Demand & opportunity
There is a high demand for financing environmental services, particularly through carbon markets and REDD+ mechanisms, which align with PNG's international commitments. Jurisdictional carbon programmes, biodiversity credits and payments for ecosystem services (PES) schemes offer significant untapped investment opportunities, especially when accompanied by clear benefit-sharing frameworks.

3.2 Finance and investment into forest protection and management of protected areas

Investment in forest protection is led by the Conservation and Environmental Protection Authority (CEPA). Still, it is largely reliant on donor funding, with less than 15% of PNG's protected areas receiving consistent financial support[65]. An assessment of potential financing needs for the maintenance and development of the protected areas network indicated in 2019 that the network had PGK 12m (USD 3m) pa in existing finance including development partner support (average – 2021 figures), would require PGK 36m (USD 9m) pa to maintain current areas, PGK 300m (USD 75m) pa to reach Aichi targets (17%) and PGK 520m (USD 130m) pa to reach the Kumung Montreal targets of 30% protected (this is based on establishment and gazettal of PAs as currently defined)[66].

A Biodiversity and Climate Fund (BCF) has been established with the intention of supporting the addressing of this gap; however, it is currently underfunded and has limited funding beyond mid-2026.

The extractives industry is estimated to contribute PGK 300m (USD 75 m) annually in concessional payments to land-owning groups, with many activities linked explicitly or indirectly to conservation actions. However, this information is not currently tracked effectively at the national scale to either maintain a clear track of finances or the specific use of these funds[67]. Similarly, a wide range of private groups and development projects have worked on developing community-based conservation areas, including the use of conservation deeds, but these do not appear in the national statistics for PA governance.

There is ongoing support for conservation initiatives through PNG's GEF allocations, as well as current support from ADB.

Demand & opportunity
The nature of conservation in PNG is complex, with over 95% of the land under customary ownership, resulting in huge areas being managed under a form of conservation, even if this is not officially recognised. The provision of financial support for the long-term protection and management of these areas must thus recognise their lived-in nature, with conservation action being an integrated part of the development pathway, as opposed to a stand-alone process to create islands of designated conservation within PNG's extensive landscapes.

Given the country's estimated 26 million hectares of undisturbed forest, however, this remains a significant opportunity with high levels of local and national demand for recognition and financial support for communities across this landscape.

3.3 Assessment of Forest Finance solutions and instruments

3.3.1 Summary assessment of forest finance solutions and instruments, stakeholder views and cross-cutting challenges and enablers for their implementation

The current report assessed progress on nine target financial solutions (see Figure 1 and Annexe 1), with three identified as operational or close to operational in PNG (shown in bold in the table below). At the same time, a further four have foundations developed. The table below presents a summary of the assessment of

64 GoPNG (2025) 2025 Budget Estimates Volume 2 Part D

65 Government of Papua New Guinea. (2019). *Papua New Guinea Protected Areas Finance and Investment Plan (PAFIP)*. Port Moresby, Papua New Guinea: United Nations Development Programme.

66 Ibid

67 Grice, T. (2019). Subnational payments in Papua New Guinea's extractive sector: Scoping study for PNG Extractive Industries Transparency Initiative. Published online at http:// www.pngeiti.org.pg .

Figure 1. Financing Solutions Assessed

these instruments against several criteria identified as part of the F4F global assessment process. The grading of instruments was conducted through a qualitative assessment by the author, based on background data assessment, stakeholder interviews, and feedback from key stakeholders within PNG. Information on the assessment of each instrument is shown in Tables 7 to 15.

Across the stakeholders interviewed, there were high levels of interest in establishing carbon finance mechanisms, with high expectations of these markets among the government and many private sector groups. NGOs and development partners expressed concern about the potential for the rapid development of these mechanisms without sufficient oversight and the risk of replicating past challenges in land-use development and landowner engagement.

All stakeholders also viewed the Biodiversity and Climate Fund (BCF) as having strong potential to serve as a mechanism for distributing finance to key groups, particularly landowning communities. It was noted that further support was needed to strengthen the operational capacity of the fund, with concern about how it would operate independently from UNDP as scheduled for mid-2026. Both CEPA and CCDA also noted the potential for funds to be established, linked to their respective line agencies, to manage financial flows from carbon, PES, and biodiversity, with these structures mandated under their respective legislations.

Existing mechanisms for supporting agricultural supply chains through development partner projects and the private sector were viewed as positive, with overall desires for expansion across government, civil society groups, and the private sector. Concern was raised about increased barriers to agricultural development and market access, noting PNG's very high forest cover, currently low-emission production systems, the limited availability of arable land, and a rapidly growing population.

The potential for budget tagging and links between a green taxonomy and budget allocations was viewed positively by development partners, government, and civil society groups alike, building on the Green Finance Policy. It was, however, also noted that such approaches needed to link with further support to action on public financial management and transparency to improve the dispersal and management of funds, especially through subnational projects and programmes. Consideration of an additional tax on forest clearance actions was seen as possible by most groups, with some concern noted about the need not to prevent legitimate development actions.

Across these instruments, several cross-cutting barriers to development have been identified, including:

- *Land-tenure security and clarity of rights* – an estimated 95% of PNG's land is owned by customary land-owners, with the vast majority of this land not officially demarcated or registered. As such, any land-based investments require significant levels of negotiations and engagement with customary land-owner groups, and specific site-based investments can present the risk of conflicts or ongoing negotiations with landowners over land access. This presents a potential barrier to long-term investments in the sector due to high costs of establishment, potential risks of the permanence and security of investments, and potential reputation exposure should procedures for community engagement not be perceived to have met best practice or to have sufficiently engaged with and benefited communities.
- *Governance and transparency measures, for example, budget tagging* – PNG has low levels of government capacity and levels of transparency and reporting within government are low. The country scored in the bottom 20% to 30% of the WB's

Table 6. Summary assessment of Forest Finance solutions

Forest Finance solution	Financial potential	Contribution to national forest objectives	Contribution to value chains	Contribution to biodiversity goals	Contribution to climate goals	Inclusivity	Scalability	Ability to overcome barriers
Carbon markets / Carbon finance	High	High	Medium	High	High	Medium	High	Medium
National forest funds / Conservation trust funds	Medium	High	Low	High	Medium	Medium	Medium-High	Medium
Finance instruments for value chains that support conservation and restoration of forests	Medium	Medium	High	Medium	Medium	High	Medium	Medium
Impact finance / Impact investment	Medium	Medium	Medium	Medium	Medium	High	Low-Medium	Low
Public finance	Low	Medium	Low	Low	Medium	Low	Low	Low
Debt-for-nature swap	Medium	Medium-High	Low	High	High	High	Medium	Medium
Green bonds / Sustainability-linked loans	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Low
PES / Incentives schemes	Medium	Medium	Medium	High	High	High	Medium	Medium
Biodiversity markets	Medium	Medium	Low-Medium	High	Medium	Medium	Medium	Medium

Worldwide Governance Indicators assessment[68], as well as being 130/180 countries in Transparency International's Corruption Perception Index[69]. This situation presents challenges in conducting effective assessments of finance and how government funds are utilised across environmental and forestry agendas as well as presenting a barrier to access for development partner, private sector or multilateral support e.g. PNG has not been able to establish a domestic accredited entity for the Green Climate Fund (GCF) and as such the recently approved REDD+ Results Based Payments (RBP) project (USD63m) will be implemented through FAO with funds not going directly to government bodies.

- *PNG's wider business environment* – Linked to the above two elements, PNG's business environment is challenging, especially for land-based activities in rural areas. Its overall business environment ranks in the bottom 35% of countries assessed across three globally recognised assessments[70]. This low ranking may also under-represent the challenges of actions in the forest / rural land use sectors, where access to land is combined with complex and very high logistical and operational challenges due to PNG's rugged terrain, limited infrastructure, high operational costs and small domestic market. These elements present a significant barrier to business development and capacity for micro, small and medium enterprises to expand and achieve scale or for many communities to develop economic opportunities effectively.
- *Volatility of international commitments and markets* – the forest and land use sector in PNG is subject to highly volatile international markets for commodities such as coffee, cocoa, vanilla and now carbon which vary both in price and nature of requirements presenting a challenge for PNG to strategically position itself within a market or seek to target access to higher quality markets (with these challenges compounded by the above noted items that increase costs and risks of doing business in PNG). These challenges are, if anything, compounded by fluctuating international commitments through development partners and international funds. E.g. support to the forest sector has oscillated rapidly over the past 20 years, while support to PNG's national REDD+ initiatives was present from 2012-2020 but then ceased along with a failure of the GCF to recapitalise its RBP pilot fund to which PNG has applied and significant political capital had been invested (that application has now been realised some six years later). This volatility and limited alignment with key government targets present a significant barrier for PNG's effective long-term strategic planning.
- *Social inclusion and gender* **–** PNG's ranks very low on gender inclusion and empowerment (151/161) as well as across the broader Human Development Index (154/193), combined with high levels of land ownership, and diverse social and customary practices (over 850 languages are spoken) present a complex picture for social and gender based engagement. This context presents a risk for investors seeking to promote high social and environmental standards.
- *MRV and data registry capacity* – detailed assessments of MRV and data registry capacity stretch beyond the scope of the current assessment, but there are significant gaps in access to information on forest resources, biodiversity and their utilisation. Improvements have been made, especially linked to the national REDD+ process and the reporting of emissions as well as work to establish safeguard information systems. However, there are still significant gaps between this information and the capacity for on-the-ground data collection, as well as management and transparency of information on levels of forest use, areas of production, and adherence to existing laws and regulations.
- *Human and institutional capacity* **–** PNG has an active and growing workforce; however, there are significant limitations to both human and institutional capacity. Institutionally, many key agencies (CEPA, CCDA) have almost no reach outside of Port Moseby and are hampered by limited budgets and institutional arrangements. Companies seeking to scale up operations and develop new industries are also faced with a relatively low-skilled workforce – educational statistics indicate an estimated 72 per cent of 10-year-olds are still not learning to read and understand an age-appropriate text, with many also leaving school early. This would present a significant challenge to the scaling of activities such as downstream processing– an estimate for

68 Scores available at https://info.worldbank.org/governance/wgi/

69 Scores available at https://www.transparency.org/en/cpi/2023

70 The assessed rankings area: World Bank Doing Business (2020 120 / 190 (60.0 score) Hard to enforce contracts; business startup easier: Economic Freedom Index (2024) 138 / 184 (55.1 score) Major constraints on property rights, efficiency - Fraser Institute (2023) 123 / 165 Challenges in legal/regulatory frameworks

staffing needs to process c.2 million m3 pa (2/3rds of existing exports) would require 11,000 to 35,000 staff, depending on the technology applied[71] – while this would be a significant contribution to addressing unemployment the availability of this number of trained personal is beyond existing capacity.

Similarly, a number of common opportunities have been identified:

- *Improved markets* – while there have been significant fluctuations in global markets, including for carbon, there is an emerging trend of increased prices and demand for forest carbon (especially through jurisdictional schemes), as well as wider market movements for improved tracking of products through their supply chains for adherence to sustainability standards. The carbon elements provide a potential market and economic basis for PNG to help transition its forest sector, while the latter offers some additional drive for sustainability but fails to provide any significant enablers for PNG to better access markets – thus, without additional support and investment, the barriers noted above may mean PNG becomes further excluded with low incentives for sustainable practices.
- *Social inclusion and gender* – while noted as a barrier above, the importance of customary land ownership, the diversity of PNG's culture and the potential significant impacts on key sustainable development indicators that action in PNG's rural areas can have present a significant and compelling narrative for investment in PNG that is both important for PNG's development and can form part of an important value addition to PNG products.
- *Access to finance* – while PNG has struggled to mobilise significant investment in sustainable forestry activities or conservation, there remains significant finance available. International private and development partner finance has been noted to be available should key governance, social and environmental standards be met and investment opportunities be well developed. Similarly, PNG has a highly liquid domestic capital market that is willing to invest locally should development models be established.

The tables below expand on the different financial instruments and provide a clearer assessment of each area.

Table 7. Carbon markets / Carbon finance

Assessment criteria	Assessment
Definition	Financial markets and instruments aimed at reducing greenhouse gas emissions through the trading of carbon credits, where one credit represents the right to emit a specific amount of carbon dioxide or the equivalent amount of a different greenhouse gas (may include REDD+ mechanisms, even if not under EU legislation)
Status	**Active – expanding** PNG has engaged in REDD+ readiness and pilot initiatives, with recent regulatory developments aiming to establish a structured carbon market framework – it recently received PGK 252m (USD63m) from the Green Climate Fund for results based payments between 2014-16 which will be managed by FAO as the accredited entity.

continued on next page

71 UNDP (2020) *Log exports to domestic processing in Papua New Guinea*. Development of future scenarios for private sector engagement in PNG's forest Sector – unpublished report

Table 7. Continued

Assessment criteria	Assessment
Focus	**Markets** • PNG has accessed both voluntary carbon markets and the previously regulated Clean Development Mechanism in the development of carbon projects. It currently has a number of projects (7) registered under voluntary market standards. • PNG has developed national strategies and legal frameworks to support carbon finance, including the **NRS**, *Climate Change Management Act* and Carbon Market Regulations the latter past in 2024 but not yet gazetted (Aug 2025). • The GoPNG is also registered within the ART-TREEs pipeline and has an MoU with the LEAF coalition for generation of Jurisdictional REDD+ credits that would also be accepted within a few compliance markets[72]. • PNG has also signed Article 6 linked agreements with Singapore (a Memorandum of Implementation) and Japan (agreement under the Joint Crediting Mechanism)[73] for access to their regulated markets and is working on the development of their own regulations and guidance linked to Article 6 based transfers. • National strategy documents including PNG's SDG13 30x30 Roadmap proposes domestic carbon market requirements and GHG neutrality in energy industries and mineral and resource extraction industries, with the NDC also proposing energy industry carbon neutrality. These would generate a domestic market for offsets.
Focus	**Sectors** • Forests • PNG's carbon markets linked development has largely focused on the forestry sector due to its large scale in PNG and PNG's role in the creation of the REDD+ mechanism within the UNFCCC. • PNG's **NRS** guides efforts to reduce emissions from deforestation and forest degradation, with co-benefits for biodiversity and communities it lays out the need for action across multiple areas of the forest sector including: - Strengthened land-use and development planning - Strengthened environmental management, protection and enforcement ~ Strengthening climate change legislation, financing and management ~ Strengthening forest management and enforcement practices ~ Strengthening environmental management, enforcement and protection ~ Strengthen access to information and recourse mechanisms - Enhanced economic productivity and sustainable livelihoods ~ Development of a sustainable commercial agriculture sector ~ Strengthened food security and increased productivity of family agriculture: **Energy** PNG has a high interest in the development of energy projects but also faces challenges on additionality due to the currently limited extent of energy access and the relatively price competitive position of renewables. A few household energy (cookstove) projects have been developed, or are under development[74]. These seek to reduce pressure on forests from by reducing fuelwood demand. **Agriculture** There has been significant interest in the development of agricultural carbon projects. Assessment by an Australian funded research programme in coffee and cocoa however noted that PNG's existing small holder production systems are already very high in carbon stock and as such any additional measures to increase their carbon value delivered only marginal benefits that may not offset the costs of implementation.

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72 Information on ART-TREEs available at https://art.apx.com/myModule/rpt/myrpt.asp?r=111, information on LEAF MoU Available at https://www.leafcoalition.org/resources

73 Information on Singapore agreement available at https://www.nccs.gov.sg/singapore-signs-first-implementation-agreement-with-papua-new-guinea-on-carbon-credits/,

74

Table 7. Continued

Assessment criteria	Assessment
Scale (current)	**Current - low** **Potential High – in excess of PGK 400m pa** • **National – Jurisdictional** PNG received PGK 252 m (USD 63m) in RBP's in 2025 (finance agreed but transfers pending) from the GCF for results between 2014-16 with these funds being managed by FAO as the accredited entity. It is seeking to generate further credits under the Architecture for REDD+ Transactions – The REDD+ Environmental Excellence Standard (ART-TREES) for two crediting periods 2017-21 and 2022-26 with an estimated 89mtCO2e in ERs available – at the minimum price of USD15 per tCO2e offered by the Lowering Emissions by Accelerating Forest finance Coalition (LEAF) this would equate to **USD1.3billion in results based finance over the 10 year period** with potential to be significantly higher as carbon prices increase with this finance potentially able to be mobilised in the coming 2-5 years • **Subnational** Nine forest carbon and two energy projects (cookstoves) are currently listed under Verra and there is one reforestation project under Gold Standard. Only three of the REDD+ projects have issued credits April Salumei Carbon Project (1.8M tCO_2e abated since 2009) and New Ireland Hardwood Timbers (1.3M tCO_2e since 2017)[75] and PNG Best A significant number of projects are being developed with estimated ER's significantly above the national base lines.
Key implementers / stakeholders	• **National** CCDA regulator, EU, FAO technical support, PNGFA, UNDP, World Bank • **Subnational** Project proponents, provincial governments, communities, local landowner groups
Impact effectiveness	• **National** No high levels of finance yet received Progress made in establishing foundations for carbon finance and linking to international support, with programmes supporting improved information on PNG's forests and support to improved policy and legislative instruments. • **Subnational** Several pilot projects have demonstrated potential for emissions reductions and community benefits, but comprehensive assessments of long-term effectiveness, integrity and scalability are ongoing

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75 Data from Verra project registry https://registry.verra.org/app/search/VCS

Table 7. Continued

Assessment criteria	Assessment
Alignment with national / international targets	**Central National Policies and Plans** Approaches to forest conservation and maintenance align with PNG's Vision 2050, and MTDP with regard to conservation and management of forest and generation of income from carbon. **National Forestry Objectives** High / Medium - Current initiatives align with broad objectives – design of GCF RBP finance links with key policy objectives. Subnational projects while aligned with increased forest protection do not currently align with policy objectives on SFM, timber processing on plantation development. There is potential for these areas to be developed. **Contribution to Value Chains** Medium – current designs and initiatives are not focused on value chain development, however with further long-term finance there is potential to support transition to sustainable forest value chains as part of forest carbon initiatives. **Biodiversity** Current initiatives have strong focus on protection of forests areas and are in line with the principles of biodiversity targets although direct alignment with specific national targets is more limited – e.g. location of target conservation areas etc. **Climate Goals** The initiatives are directly in line with PNG's NDC targets on reducing emissions from industrial logging and agricultural clearance.
Inclusiveness	High / Medium: System is currently limited in its implementation and inclusivity. Enhanced scrutiny of subnational projects and improved systems for national RBP distribution are critical to ensure high levels of inclusivity.
Scalability / market potential	**High** With appropriate legal frameworks, institutional support and market mechanisms, carbon finance initiatives in PNG have high potential to scale and engage with global markets ART-TREEs finance could generate over $100m per annum at current market prices ($15 per tonne) with potential for significant increases.
Opportunities for development	• PNG strengthening its regulatory frameworks - Lack of carbon market regulatory framework within PNG prompted development of *Climate Change (Management) Act 2023 and Climate Change (Management) Carbon Markets Regulation 2022*, which will provide guidance for developers and ensure revenue from carbon credit sales[76] • Involvement in international discussions and programs to improve position of PNG in international markets and ensure access to markets for different credit types. • Need for strengthening of safeguards framework and mechanisms for finance distribution and programme management of RBPs

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76 Climate Change and Development Authority (2023). Regulation to Guide PNG's Carbon Market. *Quarterly Newsletter of Climate Change and Development Authority*. Apr. Volume 2 Issue No. 1.

Table 7. Continued

Assessment criteria	Assessment
Barriers to development	• Absence of a fully operational national carbon registry and cohesion between national and subnational activities • Limited institutional capacity and technical expertise in designing, implementing and verifying carbon finance programs • Potential conflicts over land tenure and resource rights, complicating project implementation • Need for robust monitoring and enforcement mechanisms to ensure the effectiveness and credibility of carbon finance initiatives • Community engagement and benefit sharing • Significant need to balance national action and subnational projects to avoid conflicts in emissions reporting and benefit sharing. • Need for clear and supportive international market signals to allow for stable market development in PNG.

Table 8. National forest funds / Conservation trust funds

Assessment criteria	Assessment
Definition	*Dedicated funds established by governments or organisations to support forest conservation, sustainable management and the development of forest areas through grants, incentives or loans*
Status	**Active / Developing** – two main fund elements are developing International – The Tropical Forest Forever Fund (TFFF) is being proposed by Brazil the COP30 Presidency – the fund has been under development through 2024 and 2025 and is looking for final commitments on capitalisation by COP30. National – National Biodiversity Conservation Fund (BCF) established through GEF6 Project with UNDP and targeting independence as a national fund in 20206. A smaller fund specifically focused on the YUS conservation area is also operation and managed externally to PNG.
Focus	• TFFF – International fund targeting recognition of the value of standing forests with finance provided based on maintenance of standing forest. • BCF - Currently targeting support to communities around protected areas as well as work to formalise new areas. • Currently only able to provide grant funding as it remains within the UNDP financial architecture.
Scale (current)	Current – Low – currently only limited finance within the BCF. TFFF not operational. Potential Medium / High - • TFFF – estimated indicate the mechanism could provide **USD109m per annum** to PNG if fully capitalised. • BCF – supported by GEF finance and additional allocations from the New Zealand government (USD5m). While PGK 30M (~USD 8.5M) was allocated in 2023 from the PNG Government, no finance was transferred and it received zero allocation in 2024 and has no budget forecast for 2025–2027[77]. • Once independent the fund has potential to attract higher levels of finance (e.g. FAO RBP allocations for landowners, AFD commitment and that of others especially if it can utilise different financing instruments – it may also act as a conduit for RBP under ART-TREES if success full and potentially TFFF.
Key implementers / stakeholders	• **National** CEPA, UNDP, GEF, BCF, PNGFA • **Subnational** Local Non-Governmental Organisations (NGOs), community-based organisations, conservation area management committees are implementing grants through the fund.

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77 Department of Treasury – Papua New Guinea. (2024). *2024 Annual Budget*. [online] Available at: https://www.treasury.gov.pg/budget/annual-budgets/2024-budget/.

Table 8. Continued

Assessment criteria	Assessment
Impact effectiveness	• **National** The development of the BCF and the **PAFIP** has improved strategic direction. However, limited disbursement and no recurrent funding allocations reduce impact • **Subnational** Conservation success at local levels (e.g. YUS) shows the model works where strong NGO or donor partnerships are in place, but such models are fragile without national integration
Alignment with national / international targets	Central National Policies and Plans Funds are aligned with PNG"s national development targets. • **National Forestry Objectives** High / Medium - Current initiatives align with broad objectives but do not have specific modalities linked to engagement in SFM, timber processing on plantation development. There is potential for these areas to be developed. • **Contribution to Value Chains** Medium – current designs and initiatives are not focused on value chain development, however with further long-term finance there is potential to support transition to sustainable forest value chains as part of forest carbon initiatives. • **Biodiversity** Current initiatives have strong focus on protection of forests areas and are in line with the principles of biodiversity targets although direct alignment with specific national targets is more limited – e.g. location of target conservation areas etc. • **Climate Goals** The initiatives are directly in line with PNG's NDC targets on reducing emissions from industrial logging and agricultural clearance.
Inclusiveness	**Medium / High –** TFFF has strong safeguard requirements which would also link with those developed under PNG's REDD+ process. BCF is currently designed with strong smallholder and local community focus, with many conservation areas are managed through locally led committees. The BCF and revised PA Act emphasise community-driven governance, traditional knowledge and equitable benefit-sharing, but implementation needs strengthening
Scalability / market potential	Medium / High • **TFFF** – scalability is external but would contribute to national scale action • **BCF** – Good potential for the fund to achieve scale but will require strong support through transition and combination of development partner and GoPNG commitments.
Opportunities for development	• Expand fiscal space via extractive industry environmental levies • Mainstream conservation funds into national budget systems • Leverage international climate and biodiversity finance mechanisms (e.g. GCF, GEF-8) and link with climate finance initiatives (e.g. carbon finds noted above) • Build on successful models (e.g. YUS Conservation Area, BCF)
Barriers to development	• Inconsistent public financing commitments • Currently held in UN system making transfer of finance by other partners difficult (difficulties for other projects to place funds in it) • Weak management structure and system with need for better staff retention and capacity to implement (this also limited by lack of finance and recurrent budget) • Reliance on external donors for fund management and technical support

Table 9. Finance instruments for value chains that support conservation and restoration of forests

Assessment criteria	Assessment
Definition	*Can include: concessions mechanisms, micro-credit schemes, SME support smallholder schemes, company finance for smallholders & other SMEs (out-grower schemes, off-take contracts) and venture capital/ business catalysers. These instruments are strongly linked to value chains that can support conservation and restoration of forests with SMEs and smallholders.*
Status	**Active - under development** Supported through donor-funded pilot programs and value chain partnerships, with growing policy interest but no coherent national strategy
Focus	• **Zero Deforestation Value Chains** Pilot support in cocoa, coffee and oil palm sectors through programs such as the World Bank's PNG Agriculture Commercialization and Diversification project, which includes mechanisms to control agricultural expansion, as well as through EU STRIET Programme. (See also: **MTDP IV**, **NDC**) • **Forest Product Development and Concession Mechanisms** Out-grower and sustainable harvesting schemes for species like teak and galip nut; Balasa and timber legality standard efforts supported by ITTO and EU • **Sustainable Logging Standards and Market Mechanisms** Development of PNG Timber Legality Standard, LCOP, Reduced Impact Logging (RIL), Roundtable on Sustainable Palm Oil (RSPO), sustainable cocoa / coffee and alignment with the EU Forest, Climate Change and Biodiversity (EU-FCCB) Program for inclusive investment as well as the EU Deforestation Regulation (EUDR)
Scale and financial potential	**Medium** – no national coordination and low levels of existing market penetration but with potential for support and investment given PNG's low emission agricultural systems and high forest cover. Agricultural supply systems are low emission and have potential to benefit from companies seeking to reduce emissions down supply chains. Additional carbon benefits or offsetting / insetting opportunities are however limited. Support to Reduced impact logging provides potential opportunity for strengthened supply chain options[78];
Key implementers / stakeholders	• **National** PNGFA, CCDA, CEPA, Department of Agriculture and Livestock, Ministry of Environment, EU, FAO, Asian Development Bank (ADB), JICA, Global Green Growth Institute (GGGI), specific industry commodity boards. • **Project-Level** SMEs, local agribusinesses, certification bodies (e.g. RSPO, Forest Stewardship Council [FSC]), provincial governments, community cooperatives
Impact effectiveness	• **National** Impact to date is limited due to fragmentation and low domestic funding; however, the EU-FCCB and legality standards development represent strong policy alignment with forest and biodiversity goals • **Project-Level** Some success in piloting sustainable value chains (e.g. galip nut, teak out-growers), but broader uptake is constrained by financing gaps and capacity limitations
Alignment with national / international targets	High / Medium across national targets, and forestry, agriculture, biodiversity and climate targets– not yet fully operational but proposed mechanisms would align with both national development goals and specific sector goals on forestry (enhanced processing and quality of production) and agriculture although gaps may exist in ability to enhance volumes of production to PNG targets.
Inclusiveness	Medium High - Positive focus on inclusion through donor programs such as EU-FCCB and RIL, which promote gender-responsive investments, landowner participation and ecosystem-based approaches tailored to customary systems and community values

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78 Government of Papua New Guinea (2009). *National Training Program to Promote the Adoption of Reduced Impact Logging (RIL) in Papua New Guinea*. International Tropical Timber Organization (ITTO).

Table 9. Continued

Assessment criteria	Assessment
Scalability / market potential	**Medium** Good potential for replication if concessional financing, aggregation mechanisms and public-private partnerships are developed; sectoral buy-in from agri-forestry actors and access to voluntary standards will be essential
Opportunities for development	• Expand out-grower and SME schemes in timber, coffee, cocoa and NWFPs • Align public procurement and trade policy with sustainability criteria (e.g. EUDR), including development of due diligence procedures and tracking systems
Barriers to development	• Limited access to finance for SMEs and smallholders • Lack of national value chain integration strategy • Infrastructure and logistics challenges in rural areas • Capacity gaps in certification, compliance and business development

Table 10. Impact finance / Impact investment

Assessment criteria	Assessment
Definition	*Investments made with the intention to generate positive environmental and social impacts alongside a financial return, using strategies like fund setup, blended finance to mix different forms of private and public capital and de-risking (Guarantees, leverage finance, first-loss positions, etc) to reduce financial risk for investors. The roles of Development Finance Institutions (DFIs) and other funds EFSD+ can be considered when relevant for impact and blended finance.*
Status	**Not active / Very early development stages** Several donor-supported initiatives exist, but no formal national framework or pipeline for impact or blended finance in the forest sector. Some initial efforts linked to development of new forms of environmental credit or token.
Focus	Focus on payment for forest conservation and protection in site specific areas.
Scale and financial potential	Current – non-active – small site based initiatives being conceptualised but not effectively mobilised. Some with higher potential to generate investment. Potential – medium / high – medium potential for impact investment into high interest areas based on bankable projects. Potential of tokenisation of environmental assets unclear.
Key implementers / stakeholders	• **National** Investment promotion authority, CEPA, CCDA, DNPM, UNDP, GEF, GGGI, GFC • **International / DFIs** ADB, World Bank, IFC European Investment Bank (EIB), Agence Française de Développement, GEF, GCF
Impact effectiveness	N/A
Alignment with national / international targets	Medium – Potential to align strongly with national targets.
Inclusiveness	Medium – high potential but equally with significant risks of uncontrolled development.
Scalability / market potential	**Medium** Strong potential given PNG's natural capital and climate vulnerability, targets of investments in green supply chains and production. Limited by existing business environment and presence of bankable projects and investment opportunities with sufficient safeguards.

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Table 10. Continued

Assessment criteria	Assessment
Opportunities for development	• Develop a national platform to coordinate forest-related impact investment • Leverage international climate finance to co-invest in forest conservation and restoration • Pilot blended finance mechanisms and guarantees for SME-led forest value chains • Support to development of bankable investment opportunities.
Barriers to development	• Lack of domestic framework for blending or managing impact capital • Low investor confidence due to governance, transparency and pipeline issues • Limited financial products tailored to forest sector risks and timelines • Limited pipeline of projects – need for project identification and feasibility – GGGI climate first currently working in this area.

Table 11. Public finance

Assessment criteria	Assessment
Definition	*The adjustment of fiscal policies and budgeting processes to reflect environmental sustainability goals, often incorporating the valuation of natural resources and ecosystems into financial planning. Can include diverse solutions and instruments such as:* • Tax breaks/waivers • Subsidies • Grant schemes • Dedicated funds established by national or local governments to support forest conservation or sustainable management • Any other state-funded schemes
Status	**Not active** – potential development Limited and inconsistent budgetary support across forest agencies, with no green fiscal reform or environmental tax incentives in place. Existing tax exemptions and benefits exist for rural development activities that can include land clearing.
Focus	• **Agency Allocations** Annual public budget allocations to CEPA, CCDA and PNGFA for forest and environmental management, though amounts fluctuate and are not projected over the medium term[79] • **Fiscal Instruments** Existing tax regime includes export taxes on round logs and exemptions for processed timber; there are proposed but unimplemented incentives for plantation development • **Public Support to SMEs** PGEN provides grants to green businesses (USD 5,000 to five SMEs in 2023), but these are donor-funded, not nationally budgeted[80]
Scale (current)	Low – PNG's national budget is under significant pressure with a deficit of PGK 2.95 billion and IMF assessing the country at being at high risk of debt distress despite targets of a budget surplus by 2027. These elements place considerable constraints on the potential for a significant increase in domestic public finance towards forests.
Key implementers / stakeholders	Department of Treasury, DNPM, CEPA, CCDA, PNGFA, Ministry of Environment, Internal Revenue Commission
Impact effectiveness	**National** Mixed: agencies receive annual funding, but lack of multi-year allocations or performance-linked budgeting weakens long-term planning; conservation and restoration priorities are underfunded and public incentives for forest-friendly investments are absent
Alignment with national / international targets	Medium / low – current budget allocations are in line with PNG's objectives but there are perverse incentives across the budgeting framework e.g. tax breaks for development in rural areas including land clearing, with policy objectives targeting maintenance of forest cover.

79 Department of Treasury – Papua New Guinea. (2024). *2024 Annual Budget*. [online] Available at: https://www.treasury.gov.pg/budget/annual-budgets/2024-budget/.

80 Climate Change and Development Authority (2023). Regulation to Guide PNG's Carbon Market. *Quarterly Newsletter of Climate Change and Development Authority*. Apr. Volume 2 Issue No. 1.

Table 11. Continued

Assessment criteria	Assessment
Inclusiveness	Low: current public finance flows do not directly target smallholders or customary landowners; there are low levels of safeguards or oversight on subnational spending/
Scalability / market potential	**Medium** Significant untapped potential if fiscal policy and budgeting processes are reformed; green budgeting tools may help alignment and help removal of perverse incentives. Overall fiscal context however limits future scale.
Opportunities for development	• Introduce tax incentives or subsidies for forest restoration, reforestation, or biodiversity conservation • Adopt green budgeting principles in national planning • Redirect log export tax revenues / or land clearance taxes toward conservation and protected area management • Address existing tax breaks for land clearing • Increase taxes on forest clearing activities. • Improve tracking and accountability of any new fees or levies to clearly demonstrate additional impacts.
Barriers to development	• Limited existing public finance • Limited capacity and quality of PFM systems at present • Challenges in local political economy with need to support and further drive rural development.

Table 12. Debt-for-nature swap

Assessment criteria	Assessment
Definition	A debt-for-nature swap is a financial arrangement where part of a country's debt is forgiven or reduced by creditors in return for the country committing to environmental protection projects. This typically involves conserving natural habitats, biodiversity, or investing in sustainable development initiatives.
Status	**Not active** – potential development PNG has never implemented a debt-for-nature swap, but international examples and donor interest provide a possible pathway
Focus	Being considered to address upcoming Eurobond bullet payment of USD500m – as yet no thematic structure.
Scale (current)	• **National** No current debt-for-nature arrangements in place. PNG holds substantial external debt (~USD 7.9B in 2023[81]), much of it bilateral and concessional—suggesting technical potential - $500m upcoming bullet payment would provide an initial target. • **International Precedents** Examples include Seychelles, Belize and Gabon - countries with similar biodiversity and debt structures
Key implementers/stakeholders	PNG Treasury, Bank of PNG, CEPA, Ministry of Environment, Department of Foreign Affairs, donor countries (e.g. France, US), international conservation NGOs (e.g. TNC, WWF), multilateral creditors (e.g. World Bank, ADB)
Impact effectiveness	Not yet applicable for PNG In other countries, swaps have led to measurable increases in protected area funding and improved conservation governance (e.g. Seychelles' USD 27M swap funding marine conservation)
Alignment with national/ international targets	**High / Medium –** a debt for nature swap would need to align with national targets – it would likely not align highly with forestry or agriculture targets.

81 Papua New Guinea Department of Treasury (2024). 2024-2028 *Medium Term Debt Strategy*. Independent State of Papua New Guinea.

Table 12. Continued

Assessment criteria	Assessment
Inclusiveness	**High potential**: swap arrangements can be designed to channel funding to community-managed conservation areas and include provisions for indigenous engagement and benefit-sharing
Scalability / market potential	**Medium** Debt structure and forest assets make PNG a technically viable candidate, but successful implementation depends on the scale of creditor interest, governance readiness and legal frameworks.
Opportunities for development	• Partner with willing bilateral creditors (e.g. Australia, Japan, France) to explore feasibility • Number of existing development partners, including ADB, willing to support the process.
Barriers to development	• No enabling policy or legal framework • Requires high-level negotiation and creditor agreement • Limited institutional capacity to manage swap implementation and track conservation outcomes • Risk of poor integration with national budget and planning systems

Table 13. Green bonds / Sustainability-linked loans

Assessment criteria	Assessment
Definition	*Financial instruments issued to fund projects with environmental benefits, with green bonds raising capital for upfront expenditure and sustainability-linked loans offering incentives for achieving sustainability performance targets.*
Status	**Initiating -** potential development Geen lending - Initial work on the green financing framework has been developed with the Green Refinancing and Credit Guarantee Facility being established with the support of the Green Finance Centre and funds from AFD. This is currently focused on micro and small loans. Work being undertaken to enhance scale. Green bonds – no bonds developed or fully under development. Work is being initiated to identify the potential of green bond issuance in the private sector, with work on creating a green taxonomy to help structure investment. Issuances by public sector not seen as likely due to current debt profile.
Focus	Current focus on small and micro scale borrowers serviced through local banks.
Scale (current)	**Green refinancing –** Current facility is small with support from AFD with initial capitalisation of PGK 10-20m (Euro2-5m). Work currently underway on design of larger ADB supported facility to link with the refinancing process – this would be PGK 40-400m (USD 20 -100m)
Key implementers/stakeholders	Bank of PNG, Department of Treasury, CEPA, CCDA, commercial banks, international financial institutions (e.g. ADB, IFC, EIB), DFIs and climate funds (e.g. GCF, GEF), Ministry of Environment and Conservation, PNGX Markets Limited
Impact effectiveness	Not applicable – no instruments issued In other countries, green bonds have successfully financed forest restoration (e.g. Indonesia's sovereign green sukuk[82]) and supported nature-based investments

82 UNDP Climate Promise. (2018). *Indonesia's green bond & sukuk Initiative*. [online] Available at: https://climatepromise.undp.org/research-and-reports/indonesias-green-bond-sukuk-initiative.

Table 13. Continued

Assessment criteria	Assessment
Alignment with national/ international targets	Medium High – refinancing facilities have high levels of alignment with broad government policies linked to growth and development. Good alignment with some agricultural targets and value chains. Limited clarity on alignment with larger scale targets on forestry and biodiversity due to low ticket size and limited revenue and lending linked to biodiversity and conservation areas.
Inclusiveness	**Medium potential**: instruments designed to channel proceeds to smallholders, community-based enterprises, many of which are run by women.
Scalability/market potential	**Medium** – Existing ADB proposals show potential for increased scale. Further clarity needed on the potential for larger-scale funds. Options for private sector bond issuance linked to forestry/land use investments but still at early stage of identification.
Opportunities for development	• For the Bond market - Develop PNG-specific green finance taxonomy and issuance guidelines against which performance could be met – this will build on the overall taxonomy but requires specific indicators and metrics for each sector, including land use and forestry, that are appropriate for PNG. • Issue a sovereign or DFI-backed pilot green bond for reforestation or conservation • Tap into growing investor interest in nature-based solutions and ESG markets
Barriers to development	• No enabling policy or regulatory framework for green or sustainability-linked bonds • Low capacity among financial institutions to structure and monitor such instruments • Lack of project pipeline with credible, verifiable green outcomes • Perceived political and financial risk among potential investors

Table 14. Payments for ecosystem services / Incentives schemes

Assessment criteria	Assessment
Definition	Financial and/or non-financial incentives provided to landowners or communities for managing their land in ways that preserve or enhance ecosystem services, such as water filtration, landscape beauty, climate benefits and biodiversity.
Status	**Not active** – under exploration PNG has conducted pilot assessments and developed guidance for PES, but there is no national scheme currently operating (see also **Table 10** on impact finance re tokenisation of environmental assets.)
Focus	Payments linked to the provision of services for tourism.
Scale (current)	**National** CEPA's *Payment for Ecosystem Services Options and Opportunities* report explores the potential for forest-based PES, but no national legal or financial framework exists. PES concepts have been piloted in the YUS Conservation Area[83] and New Britain Island[84] through UNDP-supported initiatives, using payments, non-monetary incentives and co-benefit models to support conservation.
Key implementers/stakeholders	CEPA, PNGFA, CCDA, local landowner groups, conservation NGOs, UNDP, GEF, provincial governments, donor partners
Impact effectiveness	**Pilot Level** Pilot projects have successfully increased community engagement in conservation, but financial flows have been inconsistent and not scalable; no impact yet on broader forest financing goals
Alignment with national/ international targets	High – concepts align with key biodiversity and climate targets – limited alignment with agriculture and forestry targets.
Inclusiveness	**High potential:** PES is specifically designed to compensate customary landowners and incentivise sustainable practices - if properly designed, it can support women, remote communities and traditional governance systems
Scalability/market potential	**Low** – PES schemes face challenges of market for those willing to pay for services.
Opportunities for development	• Build on national PES assessments • Align PES with REDD+ benefit-sharing mechanisms • Use PES as part of protected area financing and reforestation incentives
Barriers to development	• No legal recognition of ecosystem services or PES schemes • Low levels of local demand for offsets or environmental services. • Challenges with land tenure documentation and intra-community agreement to secure areas • Lack of long-term funders or carbon/biodiversity credit buyers committed to PES models • Lack of clarity or agreement on 'who' would be the implementer of the offset and in which ways 'additionality' would be measures

83 United Nations Development Programme (2015). *R2R Strengthening the Management Effectiveness of the National System of Protected Areas*. Woodland Park Zoo (WPZ) and United Nations Development Programme (UNDP).

84 Conservation and Environment Protection Authority (2015). *Payment for Ecosystem Services Options and Opportunities for New Britain Island Papua New Guinea*. Papua New Guinea Government, United Nations Development Programme's Global Environment Facility.

Table 15. Biodiversity markets

Assessment criteria	Assessment
Definition	*Markets designed to the trade of biodiversity credits or certificates, representing actions taken to conserve or restore biodiversity.*
Status	**Not active** – under exploration No formal national framework exists, but has been explored with pilot initiatives and included in policy discussions (see also **Table 10** on tokenisation of environmental assets)
Focus	Current framework focuses on forest conservation with metrics for per ha offsetting and cost levels – intended to support the finance of and expansion of protected areas.
Scale (current)	• **National** PNG lacks a comprehensive legal or policy framework for biodiversity offsets or credit markets. However, the PNG LNG Project has implemented a Biodiversity Offset Delivery Plan, guided by international best practices, to mitigate its environmental impact • **Pilot Level** The PNG LNG Project's offset plan includes conservation activities in areas like the Hela and Southern Highlands provinces, focusing on protecting critical habitats and species affected by the project
Key implementers/stakeholders	Department of Environment and Conservation, CEPA, ExxonMobil PNG (PNG LNG Project), local landowner groups, international conservation NGOs and potential private sector investors
Impact effectiveness	**Pilot Level** The PNG LNG Project's biodiversity offset initiatives have contributed to the protection of significant biodiversity areas, though comprehensive assessments of long-term effectiveness and scalability are pending
Alignment with national/ international targets	**NBSAP**, CBD, SDG 15 (Life on Land) and emerging global frameworks on biodiversity conservation and sustainable development
Inclusiveness	Medium potential: While pilot projects have engaged local communities, ensuring equitable participation and benefit-sharing in future biodiversity offset and credit market initiatives will require robust frameworks and capacity-building efforts
Scalability/market potential	**Medium** With appropriate legal frameworks, institutional support and market mechanisms, biodiversity offsets and credit markets in PNG have the potential to scale, attracting investment and contributing to conservation goals
Opportunities for development	• Establish a national policy and regulatory framework for biodiversity offsets and credit markets • Develop standardised methodologies for assessing and valuing biodiversity impacts and offsets • Engage stakeholders, including local communities and the private sector, in designing inclusive and effective offset programs
Barriers to development	• Absence of formal legal and policy frameworks governing biodiversity offsets and credit markets • Limited institutional capacity and technical expertise in designing and implementing offset programs • Challenges in agreement on institutional roles and responsibilities between the private sector and the government in the delivery of offsets. • Potential conflicts over land tenure and resource rights, complicating offset implementation • Limited baseline data and need for robust monitoring and enforcement mechanisms to ensure the effectiveness and credibility of offset initiatives

3.4 Availability and gaps of baseline data and MRV systems

There are very significant gaps in the quality and availability of data linked to forest finance in PNG. As noted in Section 2, there is a large informal economy in PNG, linked to the access and use of forest resources, that is under-reported and not fully recognised in policy or economic documentation.

The formal timber industry, while significant, with international log export monitoring also remains opaque in terms of private investment, with most companies not publicly listed and part of international firms that access private finance and do not report fully on operations.

The government sector also presents significant barriers to effective data assessment, with limited availability of audited accounts or financial statements, and unclear cost estimates of operations. Indeed, even data on staffing levels or operational costs of core monitoring tasks are difficult to obtain.

These elements make effective assessment of the financial landscape complex, as well as acting as a barrier to further investment from sustainably focused firms.

In terms of data on the physical status of PNG's forests, systems have improved significantly. PNG's National Forest Monitoring System (NFMS)[85] provides good information on the nature of PNG's forests and levels of forest cover change. It, however, does not provide information on forest concessions outside of their geographical boundaries (e.g., information on AAC, log exports, permits issued, environmental management plans, etc.) and lacks information on agricultural clearance permits.

Log export monitoring provides valuable third-party information on timber exports and values, which, given the dominance of the export industry, offers a significant level of insight into the scale and nature of the timber industry in PNG[86]. A lack of interconnectedness between these systems, as well as reliance on third parties for data collation, presents a significant weakness. Limited connectivity also exists between data on emissions and the geographical nature specifics of land use (emissions are linked to categories of activity as opposed to site-based actions), presenting challenges in developing improved policy options that focus on site or policy-based actions, e.g. decreases in timber harvesting of X with results in revenue loss of Y but a decline in emissions of Z.

Biodiversity data is patchy, with limited specific dates on vegetation types and distributions. Species and biodiversity assessments are location-specific and limited in extent, with limited spatial data systems available.

Socioeconomic baselines related to customary landowner livelihoods, land tenure and equity indicators are particularly weak, with census data itself limited and outdated. Land tenure and community organisational information held by the Department of Lands and Physical Planning is undergoing a programme of digitisation, but remains limited and outdated in many areas[87].

These gaps undermine the potential implementation, scalability, and integrity of financing instruments such as REDD+, biodiversity offsets, and impact investment. Despite PNG's submission to the ART-TREES program and interest in carbon markets, the absence of a fully operational carbon registry, standardised MRV protocols for biodiversity and social co-benefits and disaggregated data on community-level impacts presents a barrier to attracting high-integrity investment. Financing solutions tied to results-based mechanisms, green bonds, or PES require robust, transparent and verifiable metrics. Strengthening MRV frameworks— particularly those that integrate climate, biodiversity, and social safeguards— is critical to de-risking forest finance, building investor confidence, and ensuring long-term positive environmental and social outcomes in PNG.

Data on private sector finance in the forest sector also remains limited, with many companies unwilling to disclose or engage in potential investment discussions. With most companies under private ownership linked to foreign investment finance, and with a complex set of company structures, regulating or pushing for enhanced clarity of finance is a complex and challenging task, beyond the capacity of many of PNG's institutions. Improvements in the business environment and revenue/investment opportunities that link with international best practices would provide a chance to improve the investment environment and transparency of private sector financial flows. Further work is needed to understand better the potential costs and benefits of transitions to improved logging practices and plantation development.

85 https://png-nfms.org

86 SGS timber export monitoring reports available at https://pngiforests.org

87 Requirements under the revised Lands Group Incorporation Act for all Incorporated Land groups (ILGs) to re-register by 2022 has seen only a small fraction re-register.

4

Expert's opinions and recommendations for Forest Finance solutions and instruments

PNG's forest finance remains constrained and overly dependent on cyclical and unpredictable development partner funds that are often poorly aligned with central government targets. Domestic finance is vulnerable to mismanagement due to limited transparency and weak implementation frameworks. High tax burdens and the complexity of the PNG business environment present challenges to attracting private sector investment into the land use and forestry space, with an absence of well-developed investment opportunities.

Addressing financing gaps requires an integrated approach that utilises a range of mechanisms to create a mutually supportive framework for forest sector transition. The current analysis aims to present the assessed options within a high-level conceptual framework, dividing them into 'source' finance, 'finance conduits', and 'future' finance.

4.1 "Source" Finance

These refer to mechanisms that can generate a source of finance for investment into the forest sector. These focus on opportunities that can provide finance in the short to medium term, linked to sustainable forest management and enhanced conservation action. They are identified as priorities due to their potential to mobilise finance, address (e.g. strengthening application of safeguards to address inclusivity, and deliver longer-term, more predictable finance) or bypass some immediate barriers (e.g. land tenure) and act as a signal domestically for enhanced commitment and support for action across the sector and in addressing broader barriers. These include:

Source	Carbon Finance – Jurisdictional REDD+ Finance
Impact	Indicative PGK 400m pa (USD100m) – 40/60% split between GoPNG and Landowner focused investment
Timeline	2026-2028
Feasibility	High – based on existing support and development of ART-TREEs submission.
Areas for EU support	No immediate support needs identified outside of existing finance. Potential areas for further support include: • Jurisdictional and nesting support • Support on engagement with international standards and markets • Support in improved integration between ER reporting and forestry activities.
Key barriers[88] addressed and evidence anchors	Addresses large-scale financing gap identified in Section 2 for conservation, land use and forestry finance (PGK 500-700m pa). Addresses cross-cutting barriers outlined in Section 3, including: • Jurisdictional implementation helps address challenges of site-based land title and community engagement. • Improved central revenue helps smooth the volatility of cyclical project-based commitments. • Strong safeguard requirements help address challenges of gender and social inclusion. • Provides a clear national 'value' signal for central government decision-making. • Addresses specific barriers linked: Carbon finance Section 3 Table 7: Addresses barriers linked to regulatory structures and capacities to regulate large numbers of multiple subnational carbon projects and developers.

Source	International Forest Funds – Tropical Forest Forever Fund
Impact	Indicative PGK 400m pa (USD100m)
Timeline	2026-2028
Feasibility	High - dependent on the establishment of an international fund – if established, PNG is well placed to engage with the fund and access finance.
Areas for EU support	• *Governance arrangements for the fund in PNG – support to strengthen governance arrangements and work planning for the* use of proceeds. • *MRV* – support to strengthen MRV systems to align with TFFF evolving MRV requirements.
Key barriers[89] addressed	(Barriers addressed are the same as for Jurisdictional carbon due to the similarity of the structure and implementation of the process) Addresses large-scale financing gap identified in Section 2 for conservation, land use and forestry finance (PGK 500-700m pa). Addresses cross-cutting barriers outlined in Section 3, including: • Jurisdictional implementation helps address challenges of site-based land title. • Improved central revenue helps smooth the volatility of cyclical project-based commitments. • Strong safeguard requirements help address challenges of gender and social inclusion. • Provides a clear national 'value' signal for central government decision-making. Addresses specific barriers linked: Carbon finance Section 3 Table 7: Addresses barriers linked to regulatory structures and capacities to regulate large numbers of multiple subnational carbon projects and developers.

88 Mainly focused on cross cutting barriers identified in Section 3.3.

89 Mainly focused on cross cutting barriers identified in Section 3.3.

Source	Domestic Finance – Additional Export Duties on Forest Clearing and Old concessions
Impact	Indicative PGK 50m pa (USD12.5m)
Timeline	2026-2028
Feasibility	Medium / High – requires significant political capital and willingness of GoPNG to more closely link duties with specific environmental spending – actions could be supported and catalysed by finance linked to above sources.
Areas for EU support	Support for the establishment and implementation of duties – Support for the strengthened development of the framework of fees and charges based on permit types.
Key barriers[90] addressed	Addresses large-scale financing gap identified in Section 2 for conservation, land use and forestry finance (PGK 500-700m pa). Addresses cross-cutting barriers outlined in Section 3 Addresses specific barriers linked: Public Finance Section 3 Table 11, including: • Limited capacity for tax collection and PFM – through application of direct tax with specific direct allocation to conservation/forest actions • Limited existing public finance – by taxing forest clearance activities only that are directly removing a national asset – potential for tax to be structured not to discourage genuine agricultural or other developments. • Challenges in the local political economy may only apply tax to specific forest activities.

Source	Debt for Nature Swap
Impact	Indicative PGK 1 billion (USD500m)
Timeline	2028-29
Feasibility	Medium – requires significant political capital and engagement within both GoPNG and potential investors to structure a debt for nature swap engagement.
Areas for EU support	*Support to development of framework for debt for nature swap* – PNG requires significant support to develop the capacity to negotiate a swap and develop the domestic frameworks to present and clarify actions to be taken as part of the process.
Key barriers[91] addressed	Addresses large-scale financing gap identified in Section 2 for conservation, land use and forestry finance (PGK 500-700m pa). Addresses cross-cutting barriers outlined in Section 3 Addresses specific barriers linked: Debt for Nature Swap Section 3 Table 12 including: • Limited institutional capacity to manage swap implementation

Finance 'conduits'

These refer to structures or tools that can be utilised to help direct the flow of finance into target areas. These will play a critical role in addressing key barriers around the governance and transparency of forest finance, helping to both enhance the impacts of existing finance mobilised and provide a framework to catalyse further finance. These include:

90 Mainly focused on cross cutting barriers identified in Section 3.3.

91 Mainly focused on cross cutting barriers identified in Section 3.3.

Conduit	Domestic Forest Fund - Biodiversity Climate Fund
Impact	PGK 500m pa (if 60% of REDD+ and TFFF funds were allocated to it) - Scale will depend on the capacity of the fund and the willingness of other entities to capitalise – if it receives significant volumes from results-based finance, it would likely be able to leverage further finance.
Timeline	Independent in 2026
Feasibility	High – fund already established
Areas for EU support	***Support to post-transition management –*** the fund may require significant additional support in its initial years to maximise its impact and develop trust across groups while also addressing existing structural and operational barriers. Additional technical support would help reduce transaction costs for those contributing to the fund.
Key barriers[92] addressed	Addresses cross-cutting barriers outlined in Section 3, including: • Governance and transparency – by providing a transparent, well-resourced entity to manage a portion of financial flows and to ensure effective application of safeguards when engaging rural communities. Addresses specific barriers linked: National Forest Funds Section 3 Table 8: • Inconsistent public finance – through mobilisation of above noted funds in source finance • Weak management structure – by providing ongoing support to management capacity while scaling up to manage larger financial flows.

Conduit	Domestic Budget – Budget tagging and green decision-making tools
Impact	Not quantifiable – impact will be based on enhanced governance and the ability to leverage additional finance.
Timeline	2026-27
Feasibility	Medium / high – approach has already been initiated through Green Finance Center / IFC and JICA support. Further engagement is needed to broaden the impact and uptake.
Areas for EU support	***Support to development of additional approaches to budget tagging, monitoring and decision-making tools in forest sector –*** Additional support needed across these target areas.
Key barriers[93] addressed	Addresses cross-cutting barriers outlined in Section 3, including: Governance and transparency – by enhancing the transparency of financial management systems. Addresses specific barriers linked: Public Finance Section 3 Table 11, including: • Limited capacity for PFM – through capacity building support for management and tracking of financial flows. • Political economy of finance – By increasing transparency and tracking of finance, it will reduce the capacity of funds to be used as part of political actions and will increase focus on service delivery.

92 Mainly focused on cross cutting barriers identified in Section 3.3.

93 Mainly focused on cross cutting barriers identified in Section 3.3.

Future finance
These refer to finance that can be further mobilised through the adoption and effective implementation of the above-noted tools and include: Impact investment

Within the current policy context, senior leaders in the PNG government, including the Prime Minister, have made widely publicised policy and strategy commitments to the protection and management of PNG's forests. These commitments, however, must be seen as temporary and reliant on the capacity of the GoPNG and partners to mobilise and disburse sufficient alternative finance to counteract the existing political economy of forest use.

Based on the existing assessment, the following mechanisms are proposed for prioritisation:

4.2 Source Finance

4.2.1 Carbon finance

Carbon finance provides the most immediate, significant and potentially predictable form of finance for PNG's forest sector while also having the potential to catalyse further investment and financial support.

The current assessment focuses on PNG adopting an approach where emissions reductions are accounted for at the national scale. At the same time, enhanced removals through tree planting are addressed by project-specific activities that could be eligible through voluntary market mechanisms or project-specific actions under Article 6.

Impact – Over PGK 400m per annum (USD 100m) with potential to mobilise over USD1 billion in initial 'windfall' finance by 2028 based on historic credits (although historic credits may not achieve the same levels of market interest).

PNG has ER results for the periods 2017 and 2026, with the potential to take these credits to market in two phases over the next 12-36 months. The sale of these credits could generate significant levels of finance (USD 1 -2 billion, depending on the crediting structure and market uptake) that will flow directly to GoPNG and provide a clear signal of the benefits of forest management.

In line with PNG's existing commitments to benefit sharing at the community level, 60% of these funds should be targeted towards land-owning communities, with the potential for this finance to be channelled through the Biodiversity and Climate Fund, creating a significant capital pot that can be utilised to create an endowment fund to drive sustainable investments. This level of capital would also likely crowd in other investments.

Such finance would both address and help to drive change in key **barriers,** including:

- *Land tenure clarity*—As ERs are accounted for at the national scale, specific land tenure arrangements would not be required at the site level and can be an area of investment with revenue from carbon finance. Site-based reforestation projects, given the higher upfront investment and more extended financial return periods, would also likely support higher levels of due diligence and effective engagement at the site level.
- *Governance and transparency*—although not directly impacting, the additional flow of finance and the desire to maintain market access will provide an additional incentive for improving transparency in the use of proceeds.
- *Volatility in international markets*—jurisdictional scale credits linked to compliance markets have a more transparent and predictable pricing structure and levels of demand than voluntary market credits.
- *Social inclusion and gender*—60% of the proceeds will be directed to land-owning communities, with all actions needing to meet environmental and social safeguards, helping to drive inclusive rural development.

Feasibility
Crediting submission: At the national scale, PNG has already developed carbon accounting for these, expressed interest to the certifying body, and is currently being supported in the development of its submission for the first crediting period by development partners (FAO, UNEP, and EU-FCCB). Ongoing support is needed to ensure that key mechanisms are in place for reporting of emissions, managing and monitoring the applications of safeguards and ensuring clear and transparent operation of benefit sharing mechanisms.

At the project scale for reforestation and rehabilitation, PNG already has one operational project. Further work is needed to support the identification of target areas for the development of further projects and the development of effective mechanisms to govern such projects.

Market access and purchasing - At the national scale, PNG has the potential to issue significant levels of ER credits utilising a method that follows the highest integrity standards. It is critical that these credits find a clear market, ideally with early purchase commitments and good pricing. The LEAF coalition provides a framework for this, but PNG should also consider additional market options to ensure strong pricing.

Areas for Additional EU support:
Support to jurisdictional crediting framework -
PNG currently has a number of technical support programmes operational that are seeking to support PNG's progress and access to carbon finance – further targeted support may be required in the coming 36 months, including further support on nesting frameworks, support to methodological and policy inputs to standards agencies and developing bilateral Article 6 agreements / market access standards.

Support for reforestation and afforestation actions – PNG requires technical support and guidance to better develop a pipeline of investable projects for reforestation and plantation development, including: land suitability assessments, species identification, seed stock development, integrated reforestation and production systems development, and assessment of PNGFA plantation stock. These steps are needed to aid the development of bankable project opportunities.

Support on RIL / other new methods – several new methods are also possible in PNG, including methods for reduced impact logging that would improve the quality and reduce impact of existing or ongoing concessions while utilising carbon finance to support the costs of transition. Development of methods and approaches for mangrove forests and future blue carbon areas is also relevant but goes beyond the current scope of this report.

Time horizon – 2026-2028

4.2.2 International Forest Funds

The potential of the Tropical Forest Forever Fund is also included under this section, while not a specific carbon accounting fund, its focus on forest preservation as part of a climate mitigation strategy and strong requirements for MRV are seen as linking it more specifically with climate-related objectives.

Impact – If operationalised, PNG may be able to access finance in the region of PGK 400m per annum (USD100m) that can be directed towards improved management of PNG's forests and support to those communities in forest areas.

Feasibility – The current assessment does not look at the feasibility of the fund's establishmen,t but rather the feasibility of PNG being able to access the fund based othe n current outlined criteria. In this re,gard PNG has significant potential to access the fund although further strengthening of the MRV system for forests may be required to access the funds full benefits.

Areas for Additional EU support:
Additional support could be provided to the GoPNG in a number of areas:

- *Governance of fund engagement* – should PNG seek to access the fund a robust governance structure will be required to manage financial flows and reporting. Support to PNGFA in developing these structures and meeting international standards will be important to ensure prompt and effective access to finance.
- *MRV* – FAO are currently undertaking an assessment of PNG's monitoring capacity against the proposed criteria for the fund. Further support may be required to aid capacity building and implementation of additional requirements.

Timeline: 2026-28

4.2.3 Government taxes and levies: Simplification / sustainability and deforestation levy

The current tax and levy regime for forest governance is complex (at least 15 different taxes and levies) with very high levels of export duty (raised from 27% to 70% in 10 years). Wider reform of these taxation instruments to simplify collection and bring finance for monitoring and or reforestation more in line with government needs would likely benefit a transition within the industry. This could be linked with potential exemptions/ reductions for sustainable production processes as well as increased levies for agricultural conversion with these also graded based on forest types/ status being degraded. Such reforms however are complex and may face significant challenges as such as phased approach may be needed potentially initiating with additional deforestation levies on exports from FCA's or TA's linked to agricultural clearing, and or incremental taxes linked to historic concessions to help drive transition to FMA based agreements / integrated land use management options.

Impact: A 20% export duty on timber from FCAs – returning it to the 70% set in 2023 - would generate PGK 50m (USD12.5m) pa based on 2020-2022 export levels.

Feasibility - Wide scale reform of the timber sector is likely to take time and significant levels of engagement due to the intrinsic link of many concessions with local communities and the historical nature of many agreements.

Implementation of a high-level export duty would be more feasible in the immediate term particularly given the recent rapid increase and decrease in export duties.

Careful planning of how funds raised would be allocated and utilised to support domestic agricultural production however would be needed to help address potential political backlash and perception of 'anti-development' activity.

Areas for Additional EU support:
There is existing technical support through ADB, the WB and the EU-FCCB looking at forest sector fees and taxes. Further support may however be required to develop and structure a potential taxation / duty structure and as well as support the development of a clear us of proceeds tacking.

Timeline – 2026-2027

4.2.4 Debt for Nature Swap

PNG has an upcoming bullet payment of PGK 1 billion that presents a significant fiscal challenge for the country. Operationalising a debt for nature swap to help address this and reduce debt repayments would provide a significant opportunity. Considerable support is needed for the GoPNG to engage with this process and to develop the framework and governance capacity to access and implement such an agreement.

Impact: Exact financing agreement would be negotiated during process .

Feasibility – The approach is viable dependent on government commitment and interest from partners – ADB and TNC have already made initial engagement but further support is needed in government to address this.

Areas for Additional EU support:
Technical support to GoPNG to be able to engage effectively in negotiations and structuring of agreement as well as building of capacity to implement actions under it.

Timeline – 2028-2029

4.3 Finance 'conduits'

These refer to structures or tools that can be utilised to help direct the flow of finance into target areas and include:

4.3.1 Domestic Forest funds – PNG Biodiversity and Climate Fund

PNG's BCF has the potential to act as a central fund with a key role in directing biodiversity and climate-linked finance to target areas in support of but outside government systems, and has the potential to play a key role in the provision of direct benefits to landowning communities.

Impact – should the fund be fully established, it could be capitalised by a range of financing sources – the potential use of carbon finance provides a key example and has the potential to act as a catalyst to 'crowd in' other finance.

Feasibility – the fund is established and is scheduled to become an independent fund in mid-2026. A full feasibility of its capacity to manage finance at scale has not been conducted but additional capacity building and planning is likely required to ensure the fund is fit for purpose is likely to be needed.

Areas for Additional EU support:
The fund is currently supported by finance through the GEF6 project managed by UNDP, and is receiving some additional support through the AfD-funded SONG project. Additional finance commitments from specific development partners may, however, be needed to support ongoing capacity building and administrative sustainability as the fund becomes independent in 2026.

Timeline - 2026

4.3.2 Green finance taxonomy and green budgeting

PNG has developed a Green Finance taxonomy that which is being further developed by IFC with a view to integration with budget tagging and use in private and public lending structures. Further development of existing initiatives could help improve alignment of budgeting with forest, biodiversity and climate targets, as well as increase transparency of existing public expenditure in these areas, which will help catalyse other finance.

Impact – Impact is difficult to quantify but provides a potential mechanism to channel and direct PNG's existing budget as well as additional finance, including concessional loans and bonds.

Feasibility – mechanisms for budget assessment are in place with the potential to add key elements of the financing taxonomy. Complexities may exist in developing a higher granularity of reporting on budgeting and spending, especially at the subnational level. Critical to the feasibility will be linkages with access to additional climate/forest-related finance.

Areas for Additional EU support:
Existing support is being provided by IFC and the Green Finance Center as well as JICA through the PIP process. Further support is needed to broaden this into other areas of government operation and can be linked with improved reporting on subnational government spending.

Timeline – 2026 onwards.

4.4 Future finance

These refer to finance that can be further mobilised through the adoption and effective implementation of the above-noted tools and could include investment in:

- *Afforestation and reforestation projects (plantation development)* – there are high levels of global interest in such projects that see higher value credits and potential long-term finance streams. This option is noted within the section on forest carbon above, but can also be seen as an expanding and future finance option.
- *Downstream processing and sustainable timber operations* – through the establishment of plantation estates, there is potential for an enhanced focus on downstream processing of timber operations, and improved structuring of the export industry. This process is also linked to carbon finance options noted above, but again will have a longer lead time to development due to the complexities of development and the higher investment costs.

These options are liable to attract both global private capital as well as domestic capital, including investments through pension funds and existing larger land-owner companies – there is significant liquidity in the PNG markets should effective investment options be developed. Other action areas include:

Sustainable supply chains – PNG's agricultural supply chains are primarily low deforestation and low emission. Further engagement with buyers and commodity firms, as well as producers, to identify mechanisms to enhance PNG's position in the market as an option for insetting of emissions of de-carbonisation of supply chains should be undertaken to ensure PNG is effectively able to access and benefit from this process and maintain access to premium markets. The EU would be well placed to support such initiatives, given its Global Gateway initiative as well as existing market regulations through the EUDR.

4.5 Summary Table of Potential EU Support

Support Area	Finance Area	Summary	Barriers addressed	Key partners	Instruments to be used	Value (EUD)
Support to jurisdictional crediting framework -	Source - Carbon Finance	PNG currently has a number of technical support programmes operational that are seeking to support PNG's progress and access to carbon finance – further targeted support may be required in the coming 36 months including – further support on nesting frameworks, support to methodological and policy inputs to standards agencies and developing bilateral Article 6 agreements/market access standards.	Transparency of governance systems MRV capacity Institutional capacity	CCDA, CEPA, PNGFA, DPLLGA (and subnational governments), Treasury, DoF,	Grant support	500k to 2m
Support to reforestation and afforestation actions	Source – Carbon Finance (and timber processing and production)	PNG requires technical support and guidance to develop a better pipeline of investable projects for reforestation and plantation development, including: land suitability assessments, species identification, seed stock development, integrated reforestation and production systems development, and assessment of PNGFA plantation stock. These steps are needed to aid the development of bankable project opportunities.	Institutional capacity Data availability	PNGFA, Private sector (PNGFP, Stattin Bay, PNG Balsa), Provincial Governments, CEPA	Grants for feasibility assessments Potential concessional loans for plantation/ processing development	500k – 5m for grant 50-200m in concessional
Support on RIL / other new methods	Source – Carbon Finance (and timber processing and production	PNG has the potential to capitalise on the development of new and emerging emission reduction methods linked to the specific status and nature of its forests. Reduced impact logging could provide one mechanism for this to allow for ongoing timber production with lower environmental impacts. Development of methods and approaches for mangrove forests and future blue carbon areas are also relevant but go beyond the current scope of this report.	Institutional capacity Data availability	PNGFA, PNGFA, Private sector, Provincial Governments, CEPA	Grants for feasibility and methodology development	500k – 2m
Support to international forest fund engagement	Source – International Forest Funds	GoPNG requires support across key areas to ensure effective alignment and capacity to access international forest funds, specifically the TFFF if operationalised: *Governance of fund engagement* – support to strengthening robust financial governance structure for finance and reporting. *MRV* – Support to strengthening MRV systems to meet fund requirements.	MRV capacity Institutional capacity Governance and transparency	PNGFA, Treasury, Finance	Grant	500k to 2m

continued on next page

Support Area	Finance Area	Summary	Barriers addressed	Key partners	Instruments to be used	Value (EUD)
Support to development of Debt for Nature Swap	Source – Debt for Nature	Technical support for PNG's engagement in a Debt for Nature Swap. Potential future engagement in financing structures.	Governance and Transparency. MRV institutional capacity.	DoF, Treasury	Grant	500k
Support to establishment and implementation of duties of timber	Source – Export duties on forest clearance and 'old concession types'	Support to strengthened development of framework of fees and charges based on permit types. Review of potential revenue Support to development of proposed structure and use of proceeds	Institutional capacity Governance and Transparency	PNGFA, Treasury, DoF	Grant	500k
Support to post transition management	Conduit – Domestic forest fund	Technical support to the governance and management of the fund as it becomes independent to ensure early performance and reduce overheads for early contributors to the fund.	Institutional capacity Governance and Transparency	PNG BCF and linked government partners	Grant	500k
Support to budget tagging, monitoring and decision-making tools in forest sector	Conduit – Domestic budget tagging	Technical support to the development and roll out of budget tagging as well as green decision-making tools, including integration of climate and green-based criteria in subnational budget allocations and support to implementation of climate and green criteria in PSIP, DSIP and PIP funding processes.	Institutional capacity Governance and Transparency	DoF, Treasury, DNPM, DPLLGA	Grant	500k - 2m

5

Annexes

5.1 Forest Finance Round Table

A Forest Sector Finance Round Table was held on the 12th of June in Port Moresby as part of the assessment process. The Round Table provided an opportunity for discussion across key stakeholders on the potential nature and future of forest finance in PNG. The round table followed the agenda below and had 44 attendees (34 in person, 10 online) from key arms of government, development partners and universities. There was also attendance from some private sector representatives, although representatives of the timber industry were largely absent.

Table 16. Round Table Agenda

Time	Action
08.30	**Registration**
09.00	**Welcome remarks** • EU Delegation • Papua New Guinea Forest Authority
09.20	**Introduction to Future 4 Forests** Mr Phil Summers – EU Consultant
09.30	**Overview of scoping assessment findings and areas of interest** Mr Phil Summers – EU Consultant
09.45	**Summary of action areas by partners** 1. International Monetary Fund (IMF) 2. World Bank (WB) 3. Green Finance Center GFC - Online no presentation 4. UK Foreign, Commonwealth and Development Office (Forest Governance Markets and Climate Project – representative from EFI. 5. Food and Agriculture Organisation (FAO) 6. United Nations Development Programme (UNDP) 7. United Nations Capital Development Fund (UNCDF) 8. Global Green Growth Institute (GGGI) 9. European Union (EU)
10.30	Prioritisation of financing mechanisms and areas of action
12.00	Close

Table 17. Round table Attendance

No.	Name	Organization	Email
1	Phil Summers	EU - Consultant	phil@psum.consulting
2	Monica Vazquez	EU	monica.vazquez-pablo@eeas.europa.eu
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	Online Participants		
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39	Fabio Farinosi	WB	ffarinosi@worldbank.org
40	Allan Tobalbal Oliver	WB	aoliver1@worldbank.org
41	Tim Dawson	FGMC (FCDO project)	tim.dawson@efi.int
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5.2 Other interviews and meetings undertaken

As part of the assessment, the consultant has attended key events in Papua New Guinea (PNG) and conducted one-on-one discussions with important stakeholders. The consultant is also actively working in PNG, which helps to provide context and address knowledge gaps.

In addition, numerous informal discussions have taken place alongside other assignments. For example, the consultant participated in the PNG Green Finance Summit and was involved in the EU's donor coordination efforts related to climate finance. Upcoming discussions are scheduled with UNDP to further explore the Biodiversity and Climate Fund (BCF), as well as additional calls with The Nature Conservancy regarding Debt for Nature Swaps.

The table below provides a summary of key meetings held.

Organisation	Representatives	Date	Topics Discussed
EU	Monica Vazquez	Multiple	Multiple discussions on timings and arrangements for the roundtable and the key approach.
CCDA Mitigation management senior team	Ms Gwen Sissiou Mr Terrence Barambi *Eunice Deuce*	Multiple	Discussions of carbon finance and opportunities for different approaches and structures.
CCDA	MD Debra Sungi *Managing director*	Multiple	Discussions on priority financing, options for alternative green and climate finance and political interests within government.
DNPM	Deputy Secretary Kumung and team (10 people)	15.05.25	Discussion on green finance options and areas of interest within DNPM
PNGFA	MD Mosoro Raj Shahi – *Manager Diwai Holdings*	Multiple	Discussion on PNGFA engagement in forest carbon activities
GGGI	Miguel Angel Mendez Castellanos *Climate First Project*	Multiple	Discussion on the establishment of Climate Finance unit in CCDA and the development of the project pipeline under the Climate First Initiative (and the current absence of any forestry projects)
Eneos Capital	Braeden Mayur	16/05/25	Discussion on action linked to debt for nature swaps and potential in PNG (remote call).
UPNG	Gae Gowae	15/05/25	Discussion on subnational forest planning and finance needs.
UPNG / Oro Province Conservation Bureau	Professor Gram Sam	15/05/25	Progress of the Northern province conservation bureau, and possible alternative financing approaches to conservation.
DNPM	Secretary Koney Samuel	16/05/25	Discussion on carbon finance and other green finance opportunities.
WB	Fabio Farinosi and team	09.04.25	Discussion on existing finance from WB to PNG on environment and climate, and potential follow-up finance.
ADB	Sudyumna Dahal *Country economist*	26.03.25	Discussion on ADB TA support and links on assessments of logging taxes and fees as well as other linked climate finance streams.
ADB	Saurabh Shome *Consultant*	Multiple	Discussions linked to his work assessing forestry fees and taxes as part of IMF loan.
IFC	Aicha Malik, *Operations Officer*	24.03.25	Discussion on potential links on thematic bonds and project finance.
UNDP	Artemiy Izmestyev *Country economist*	Multiple	Discussion on UNDP engagement around forest taxes and levies as well as support to Biodiversity Conservation Fund

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Organisation	Representatives	Date	Topics Discussed
IFC	Oluwatoyin (Olu) Alake *Senior Operations Officer, Upstream/Advisory* *Financial Institutions Group, Asia and Pacific*	02.05.25	Discussion on IFC support to thematic bonds in PNG.
Green Finance Center	Mohinesh Prasad *Head of GCF*	Multiple	Discussion on different financing initiatives linked to the GFC, including green taxonomy, green refinancing centre and work towards bonds.
The Environmental Alliance (network of PNG NGOs)	Pamela Avusi – *Head of network*	15.04.25	Discussion on NGO and community group interest in forest finance – identified areas of need and preferred structures for delivery.
Expertise France / Country Package	Maelle Vandierendonck *Country Package Coordinator PNG*	03.09.25	Discussion on progress and transition of the country package.
PM NEC	Diana Gora	03.09.25	Discussion on PM – NEC coordination role for finance in PNG.
Control Union	Supun Nigamuni	25.06.25	Discussion on the role of certification in accessing finance.
PNG Forest Products	Peter Rowan	Multiple	Potential options for plantation development for processing.
Santos	Milton Tyotam Kwaipo	Multiple	Potential options for plantation development and costs of development.
FORCERT	Peter Dam	Multiple	Discussion on the development of forest carbon projects, pricing and challenges of small-scale timber production.

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DG International Partnerships Unit F2 – Environment, Natural Resources, Water.
Sustainable Forests for the Future Group

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