Introduction: Pacific DataViz Challenge & Analytical Approach.

The Competition.

This report was developed as part of the Pacific DataViz Challenge 2025, an initiative organized by Pacific Data Hub to encourage impactful, data-driven storytelling across the Pacific region. Participants were provided with curated datasets aligned with Pacific 2050, a long-term regional vision that emphasizes resilient, sustainable, and inclusive development.

The challenge involves two major categories:

1. Static Visualizations (this report).
2. Interactive Visualizations.

The Dataset Chosen.

From the suite of datasets available, I selected: Blue Pacific 2050: Resources And Economic Development (Thematic Area 4) Source: Pacific Data Hub – BP50 Indicators

Why This Dataset?

This dataset was chosen because it directly relates to the economic foundations, governance effectiveness, and resource-based sustainability envisioned in the Pacific 2050 development agenda. It contains indicators that:

Measure financial inclusion, infrastructure, and access to essential services Track youth and labor force dynamics Highlight remittance flows, tax capacity, private sector contribution, and more Include emerging metrics like green economy share of GDP, and multidimensional poverty

By exploring this dataset, we can identify real structural trends, inequalities, and development gaps among Pacific Island countries — offering valuable evidence for policy intervention, resource prioritization, and collaborative action at the regional level.

Analytical Strategy & Graph Design.

1. Time Series Graphs & Comparability. Many indicators span multiple years — hence, time series charts were used to:

Visualize progress, regressions, and stagnation over time (from 2000 onward) Track changes in key metrics like unemployment, remittance flows, electricity access, etc. Help policymakers and readers assess whether national strategies align with Vision 2050

In cases where annual data wasn't available or the indicator was static or institutional (e.g., tax revenue or remittance cost), I used:

Grouped bar charts. Dot plots, horizontal bar charts, and heatmaps. Pie charts or donut charts (where proportional comparison was suitable)

I intentionally used a variety of chart types to ensure accessibility, engagement, and clarity — each chosen based on the nature and behavior of the indicator.

2. Geographic and Temporal Scope.

Country Coverage: Visualizations display only countries with available data for the selected indicator. Not all Pacific Island Countries and Territories have full coverage across all indicators. Temporal Scope: To reflect modern policy relevance, only data from the year 2000 onward was used. This also aligns with major development frameworks.

Thematic Clarity.

Visuals were grouped thematically to reveal cross-cutting trends:

Youth and labor exclusion Poverty and financial access Infrastructure and private sector Sustainability and green economy Governance and resilience

Each visualization is accompanied by:

A meaningful title Axes labels and consistent scaling A footnote citing the dataset and indicator codes A short analytical narrative interpreting key findings

Contribution to Blue Pacific 2050.

By visualizing and comparing these indicators, this report helps:

Spot disparities between countries and sectors. Highlight where investment or reform is most needed. Support the regional goal of achieving resilient, inclusive, and sustainable economies.

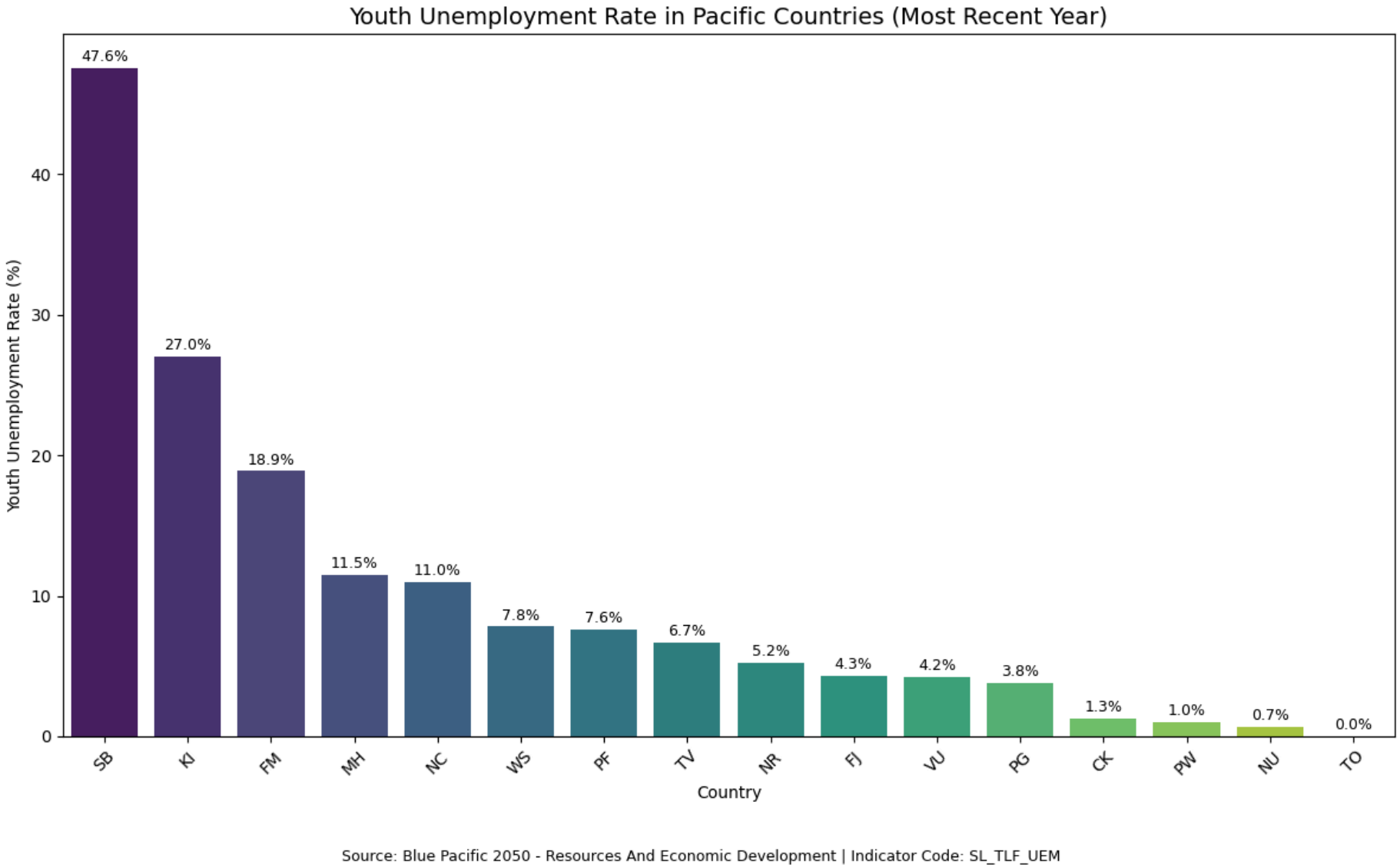
In particular, it reinforces Pacific 2050’s pillars around:

People-centered development Economic security and resilience Resource sustainability Effective governance

This static report lays a strong foundation for data-informed insights into Pacific development trends, helping policymakers, citizens, and researchers better understand the region's path toward Vision 2050.

Graph 1: Youth Unemployment Rate in Pacific Countries.

In [11]:



Analytic Narrative.

This bar chart highlights the latest youth unemployment rates (ages 15–24) across Pacific countries. It reveals substantial differences between countries:

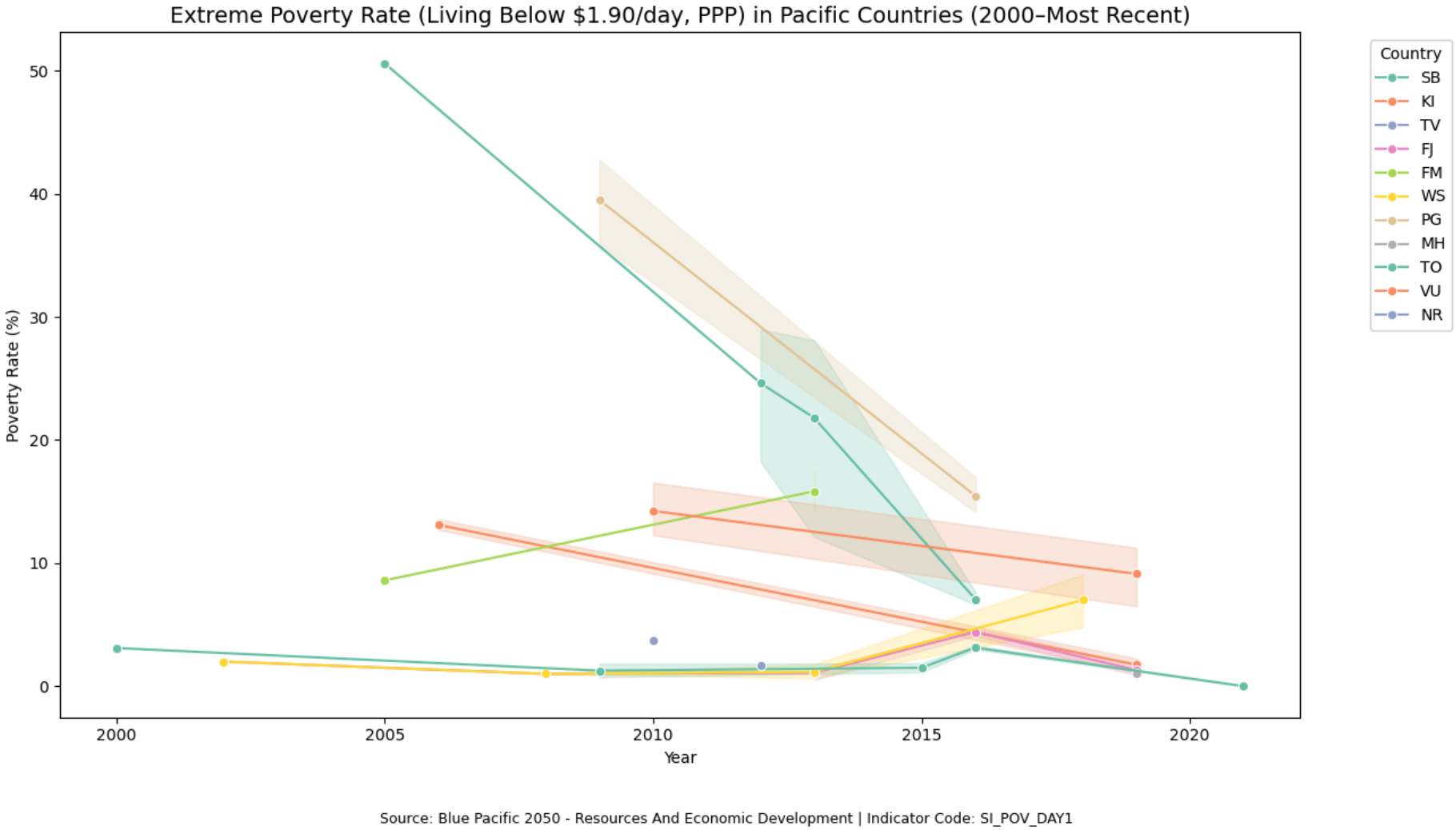
High youth unemployment in some nations may reflect economic stagnation, mismatch between education and labor market needs, or limited private-sector development.

Countries like Cook Islands and Vanuatu show relatively lower unemployment, suggesting better youth labor absorption or more dynamic informal economies.

The data underscores a critical development challenge: harnessing the youth demographic dividend in a region where populations are young and economies are vulnerable.

Graph 2: Extreme Poverty Rate (Living Below $1.90/day, PPP) in Pacific Countries (2000–Most Recent).

In [3]:



Analytical Narrative.

This time series shows the percentage of Pacific populations living on less than $1.90/day (PPP) — the international extreme poverty line.

Key Observations: Some countries show steady declines in extreme poverty — likely due to economic growth, social programs, or remittances.

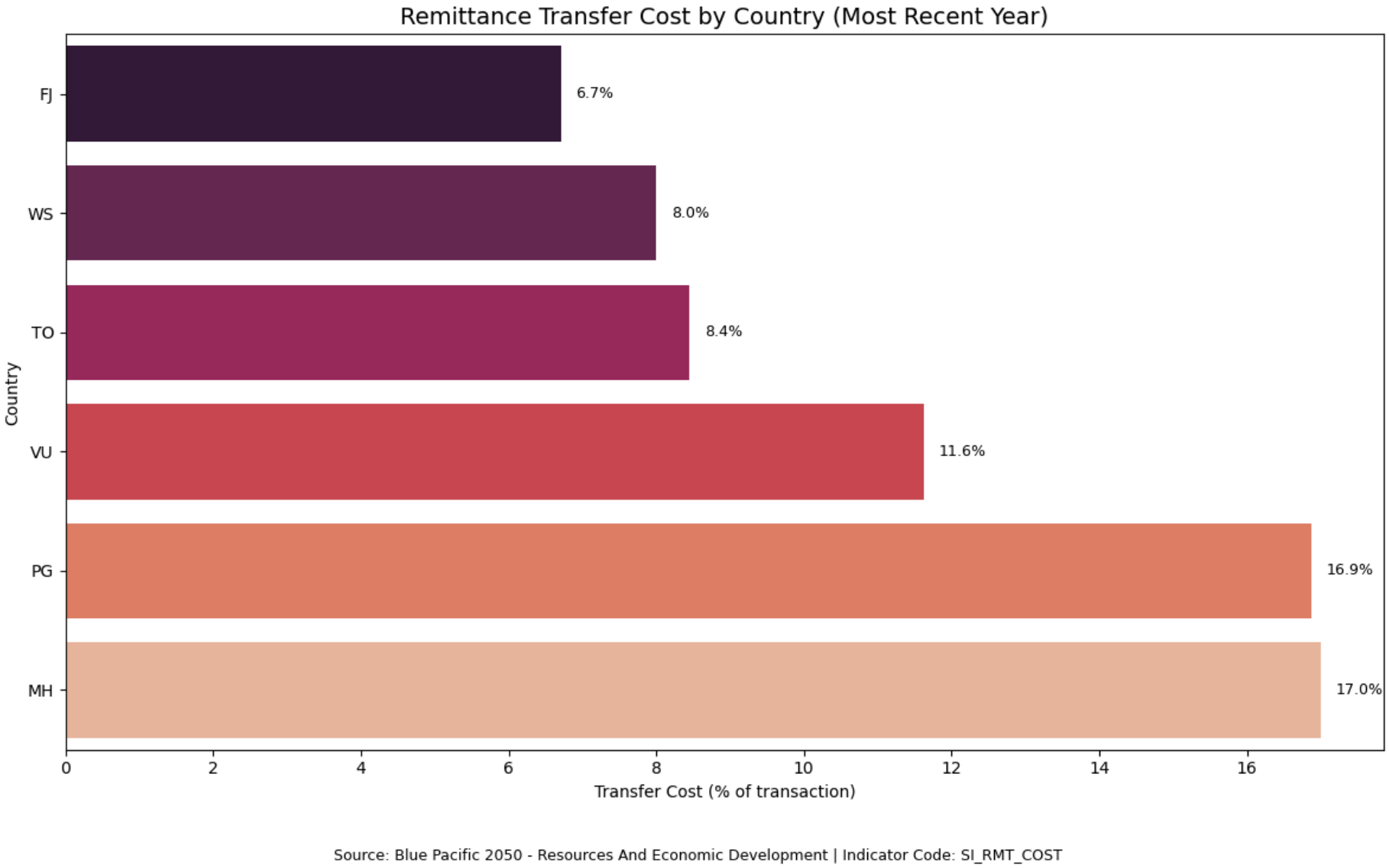
A few nations display stagnant or volatile trends, which may reflect data collection gaps or economic vulnerability to external shocks (e.g., natural disasters, global prices).

Countries with persistent poverty rates above 20% are most at risk of long-term underdevelopment and dependency.

Analyst's Take: Extreme poverty remains a serious concern in parts of the Pacific. Addressing it requires more than income growth — it calls for targeted interventions, inclusive policies, and support for vulnerable groups. The divergence in trends also underscores the need for localized strategies rather than one-size-fits-all development models.

GRAPH 3: REMITTANCE TRANSFER COST BY COUNTRY

In [12]:



Analytical Narrative.

This horizontal bar chart visualizes the cost of sending remittances (as a % of the transaction amount) to each Pacific country based on the most recent year of data.

Key Insights: In many countries, remittance transfer costs are well above 5%, with some exceeding 10%, which greatly reduces the amount families actually receive.

Only a few countries appear close to the UN SDG target of 3%, emphasizing limited progress in reducing transaction costs.

The wide variation may stem from differences in banking infrastructure, regulatory environments, digital inclusion, and market competition.

Analyst's Take: Remittances are a vital financial lifeline in the Pacific, often exceeding official aid. Yet, these high costs undermine their developmental impact. Lowering fees through digital financial services, increased competition, and policy reform could directly benefit millions. This indicator is crucial for improving economic resilience at the household level.

GRAPH 4: PERSONAL REMITTANCE RECEIVED (BX_TRF_PWKR)

In [13]:

Source: Blue Pacific 2050 - Resources And Economic Development | Indicator Code: BX_TRF_PWKR

Analytical Narrative.

This bar chart shows the total personal remittances received (in USD millions) by Pacific countries for the most recent year available.

Key Insights: Fiji, Tonga, and Samoa stand out with the highest inflows, indicating strong ties with diaspora communities and a high dependence on remittances.

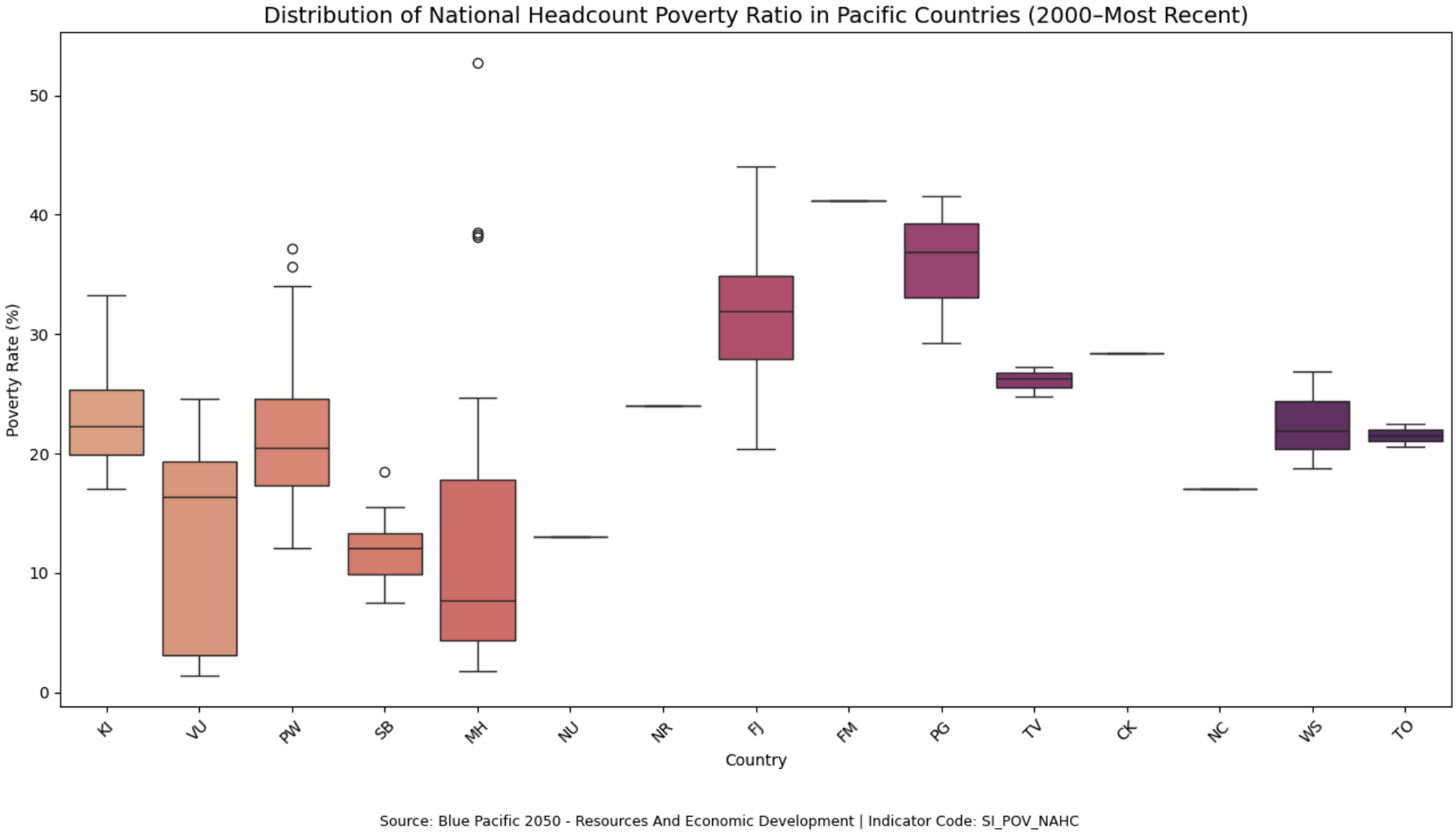
Smaller countries or those with lower migration rates receive much less, reflecting limited overseas populations or remittance infrastructure.

The imbalance in inflows suggests that while remittances are vital in many countries, the benefits are not evenly distributed across the region.

Analyst's Take: Remittances are a major economic engine in the Pacific, often surpassing foreign aid and export earnings. However, this reliance on external labor markets makes countries vulnerable to global disruptions, such as pandemics or recessions in host countries. For long-term resilience, nations should aim to diversify their income base and channel remittances into productive sectors like small businesses, education, and digital infrastructure.

GRAPH 5: NATIONAL HEADCOUNT POVERTY RATIO (SI_POV_NAHC)

In [14]:



Analytical Narrative.

This boxplot illustrates the distribution of national poverty rates across Pacific countries from 2000 to the most recent available year, based on each country's own poverty threshold.

Key Insights: Some countries display wide variability over time, indicating changing economic conditions or shifts in poverty line methodology.

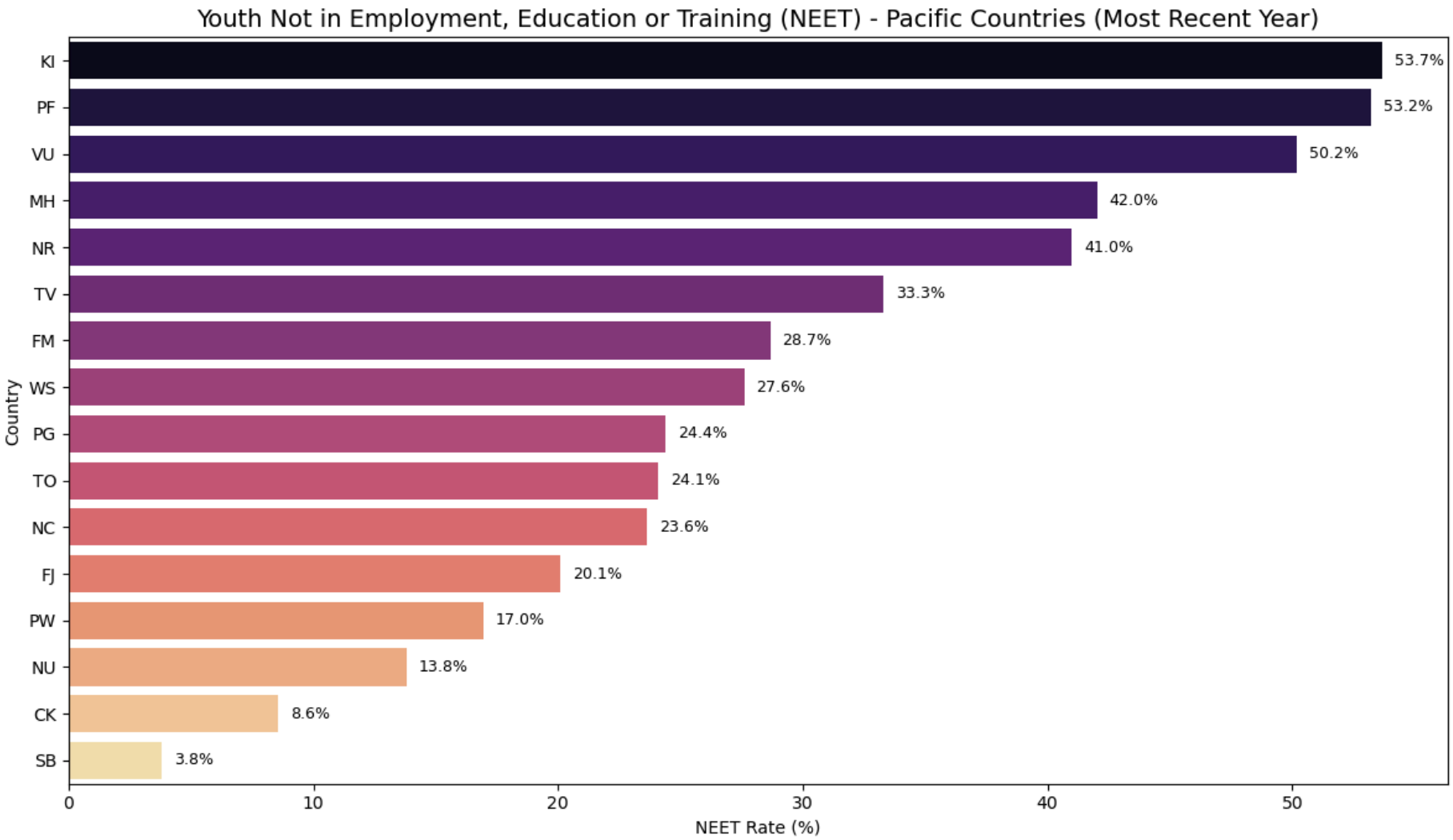
A few countries maintain consistently high median poverty rates, suggesting structural issues or slow policy responses.

Others show tight, lower distributions, potentially reflecting more stable economic conditions or effective social protection systems.

Analyst's Take: National poverty data provide local relevance, tailored to the actual cost of living in each country. This boxplot helps identify countries with persistent high poverty, or those experiencing volatile poverty trends — both of which call for targeted policy responses. It also highlights the importance of data reliability and consistency in tracking social progress.

GRAPH 6: YOUTH NEET RATE (SL_TLF_NEET)

In [15]:



Source: Blue Pacific 2050 - Resources And Economic Development | Indicator Code: SL_TLF_NEET

Analytical Narrative.

This chart visualizes the percentage of youth (ages 15–24) who are Not in Employment, Education, or Training (NEET) in each Pacific country based on the most recent available data.

Key Insights: Some countries show alarmingly high NEET rates — over 40% — indicating a significant portion of youth are disengaged from the economy and education system.

Others are below 20%, suggesting more effective youth integration policies or broader access to jobs and schooling.

These rates may correlate with unemployment, dropout levels, urban drift, or even mental health and social exclusion.

Analyst's Take: A high NEET rate is a red flag for social and economic planners. It represents lost potential, social vulnerability, and long-term risks to productivity. Governments need targeted policies like youth employment programs, vocational training, and education incentives to tackle this hidden crisis.

GRAPH 7: EMPLOYMENT EARNINGS IN THE PACIFIC COUNTRIES (SL_EMP_EARN)

In [16]:

Analytical Narrative.

This violin plot shows the distribution of employment earnings across Pacific countries between 2010 and 2022. Unlike bar or line charts, violin plots visualize both the range and concentration of income levels.

Key Insights: Some countries show very tight earnings distributions, indicating more uniform wages across workers.

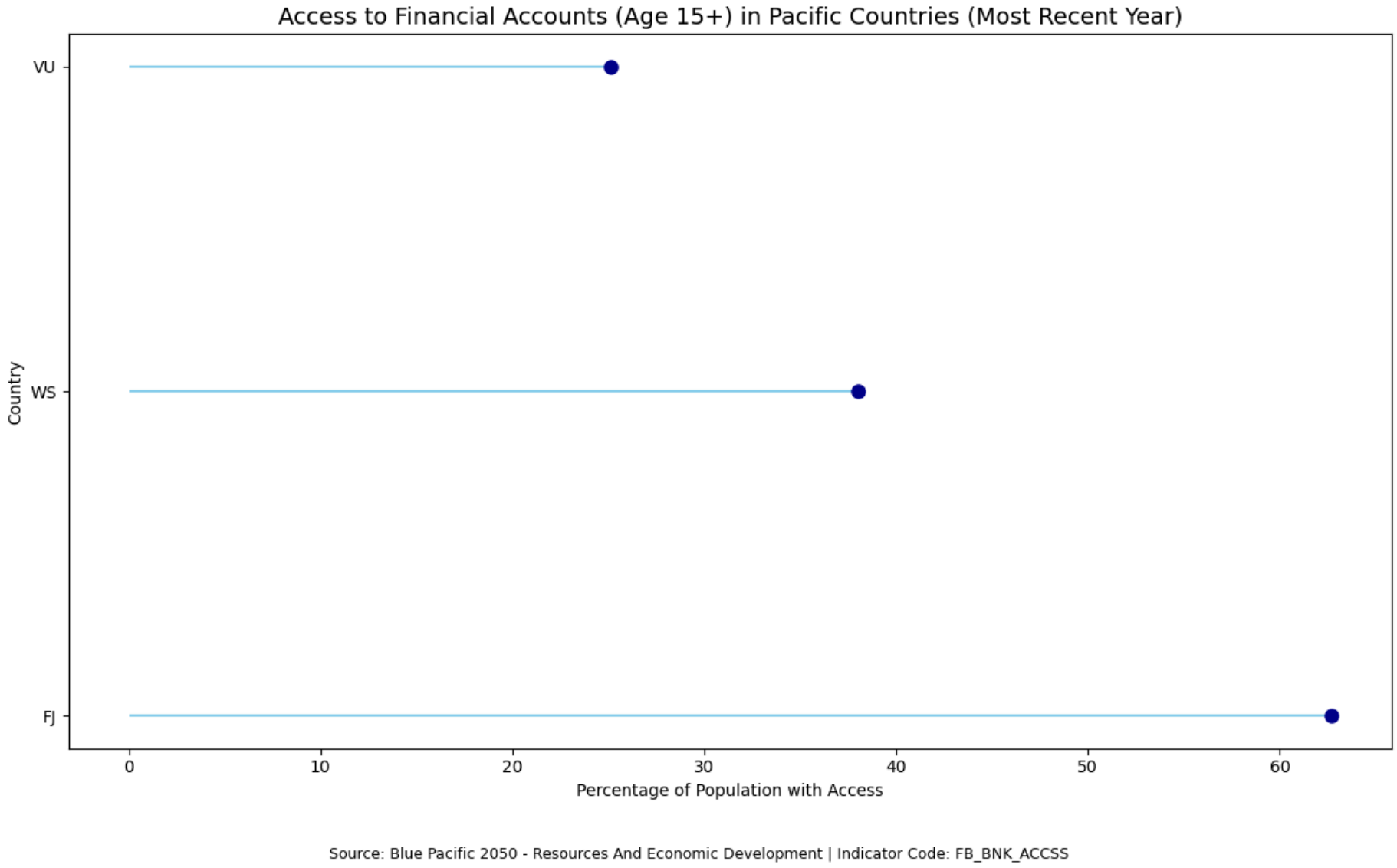
Others display wide and skewed spreads, hinting at income inequality or sectoral wage differences.

Countries with bimodal shapes may suggest informal/formal dual economies, or differences between public and private wages.

Analyst's Take: Visualizing earnings with violin plots reveals far more than averages — it shows inequality, volatility, and the potential depth of labor segmentation. This view is crucial for policy aimed at raising wage floors, ensuring fair pay, and supporting equitable growth across employment sectors.

GRAPH 8: ACCESS TO FINANCIAL ACCOUNTS (Age 15+) (FB_BNK_ACCSS)

In [12]:



Analytical Narrative.

This lollipop chart illustrates the percentage of people aged 15 and older with access to formal financial accounts (bank or mobile) across Pacific nations.

Key Insights: Some countries boast access rates above 80%, highlighting well-developed financial infrastructure and policies that promote inclusion.

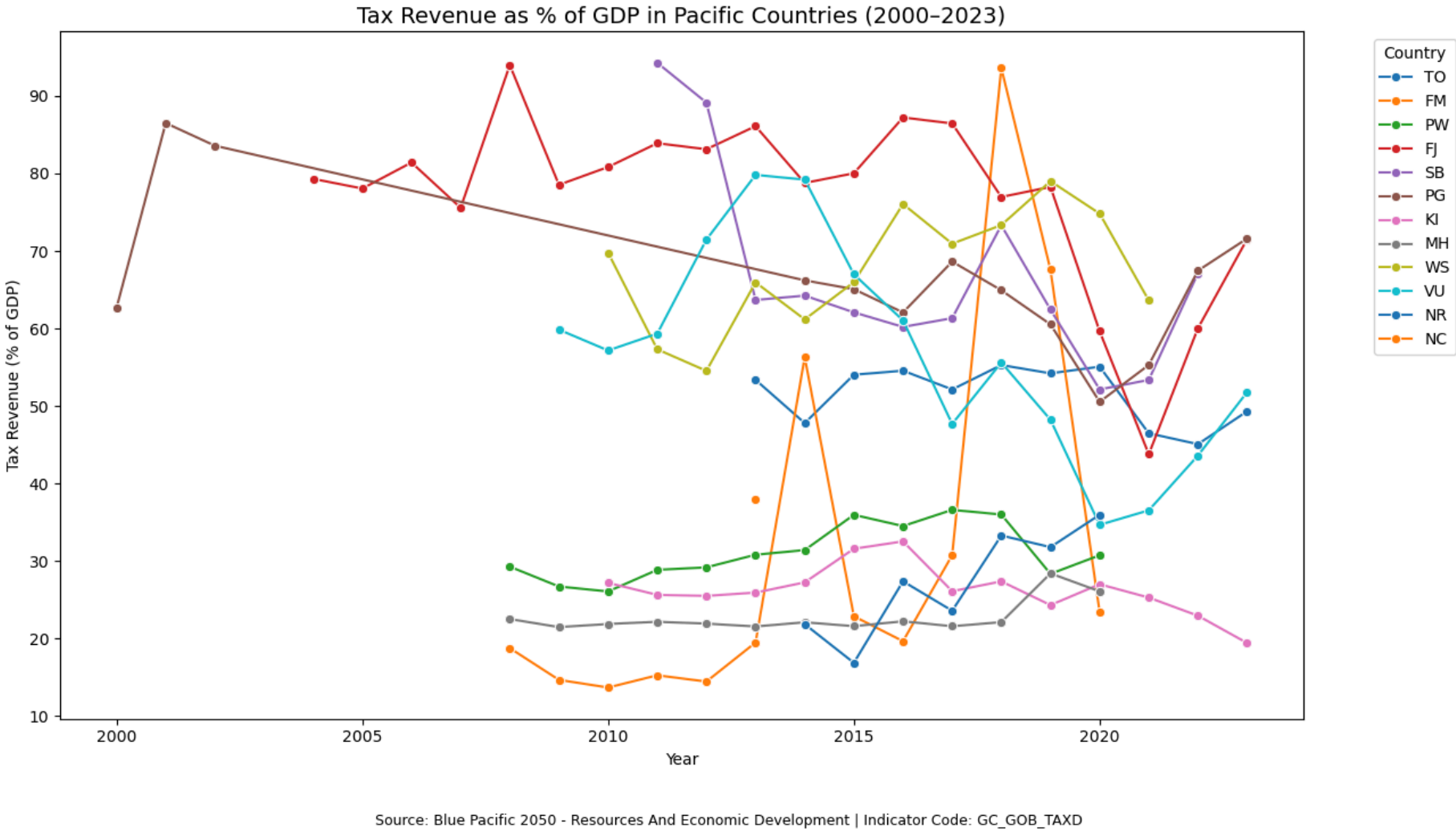
Others sit well below 40%, suggesting barriers to access like geographic remoteness, lack of trust, or low financial literacy.

The overall distribution shows a clear disparity in financial inclusion across the region.

Analyst's Take: Access to financial accounts is critical for economic empowerment, savings, credit, and social protection. This indicator reflects a country's financial maturity and its ability to connect citizens to economic opportunities. For many Pacific islands, expanding access — especially through digital and mobile platforms — could unlock significant development gains.

GRAPH 9: TAX REVENUE AS A PERCENTAGE OF GDP (GC_GOB_TAXD)

In [13]:



Analytical Narrative.

This multi-line chart tracks the share of GDP collected as tax revenue across Pacific nations over time. It reflects each government's fiscal capacity and ability to invest in services, infrastructure, and development.

Key Insights: Several countries exhibit steady upward trends, indicating growing tax collection capacity or tax reform effectiveness.

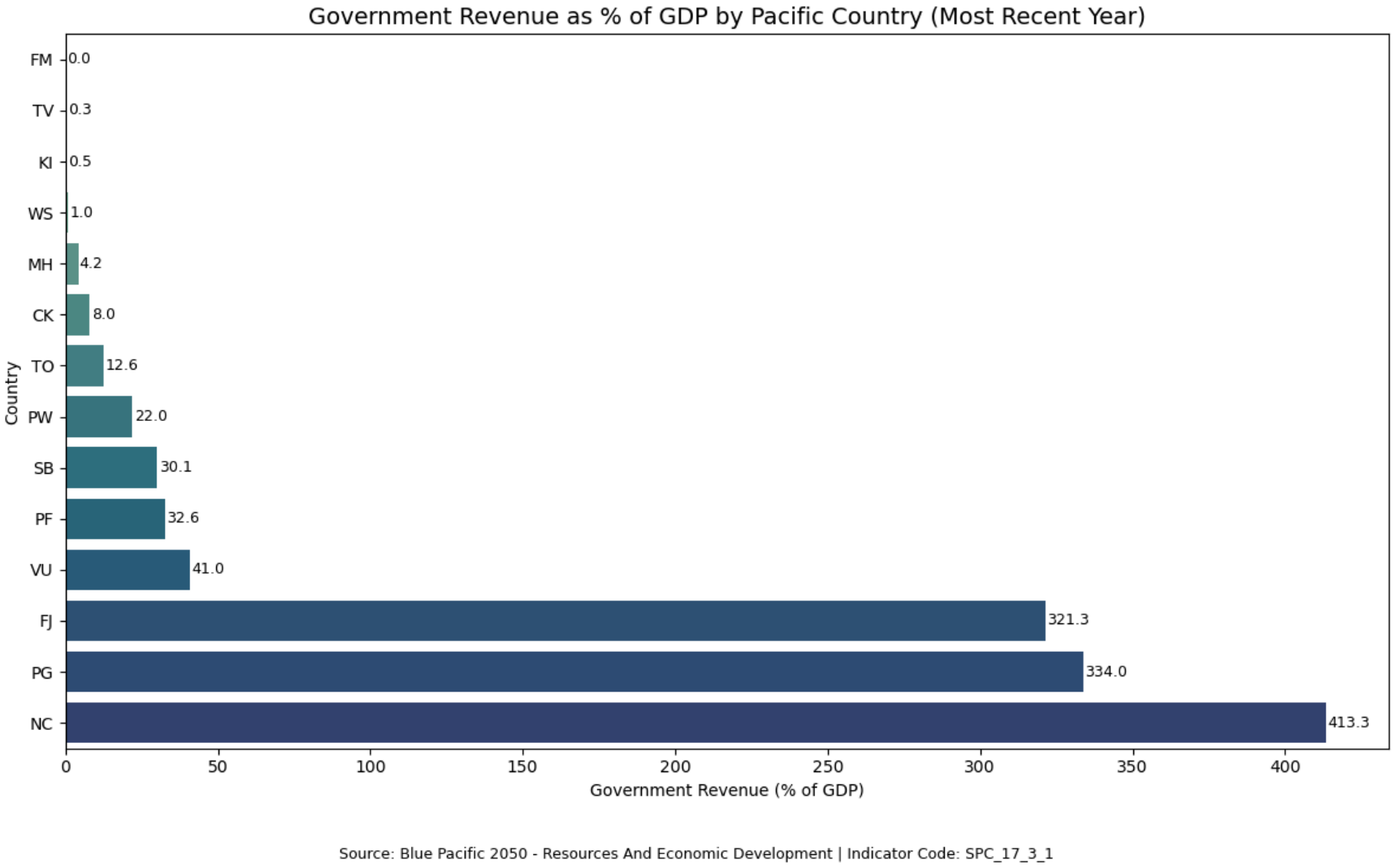
Some remain flat or declining, potentially due to shrinking formal sectors, tax avoidance, or administrative challenges.

The range between countries highlights significant variability in public finance structures across the region.

Analyst's Take: A strong, stable tax base is essential for economic sovereignty and sustainable development. These trends reveal how well Pacific governments are able to mobilize domestic resources. Countries with volatile or low tax-to-GDP ratios may need to strengthen their tax systems through digitalization, compliance, and inclusive policy reforms.

GRAPH 10: GOVERNMENT REVENUE AS PERCENTAGE OF GDP (SPC_17_3_1)

In [17]:



Analytical Narrative.

This vertical bar chart compares Pacific countries by their most recent value of government revenue as a percentage of GDP — a key metric of fiscal strength and resource mobilization.

Key Insights: Countries with higher bars collect a larger portion of their GDP in revenue, which indicates stronger fiscal capacity and better ability to fund public services.

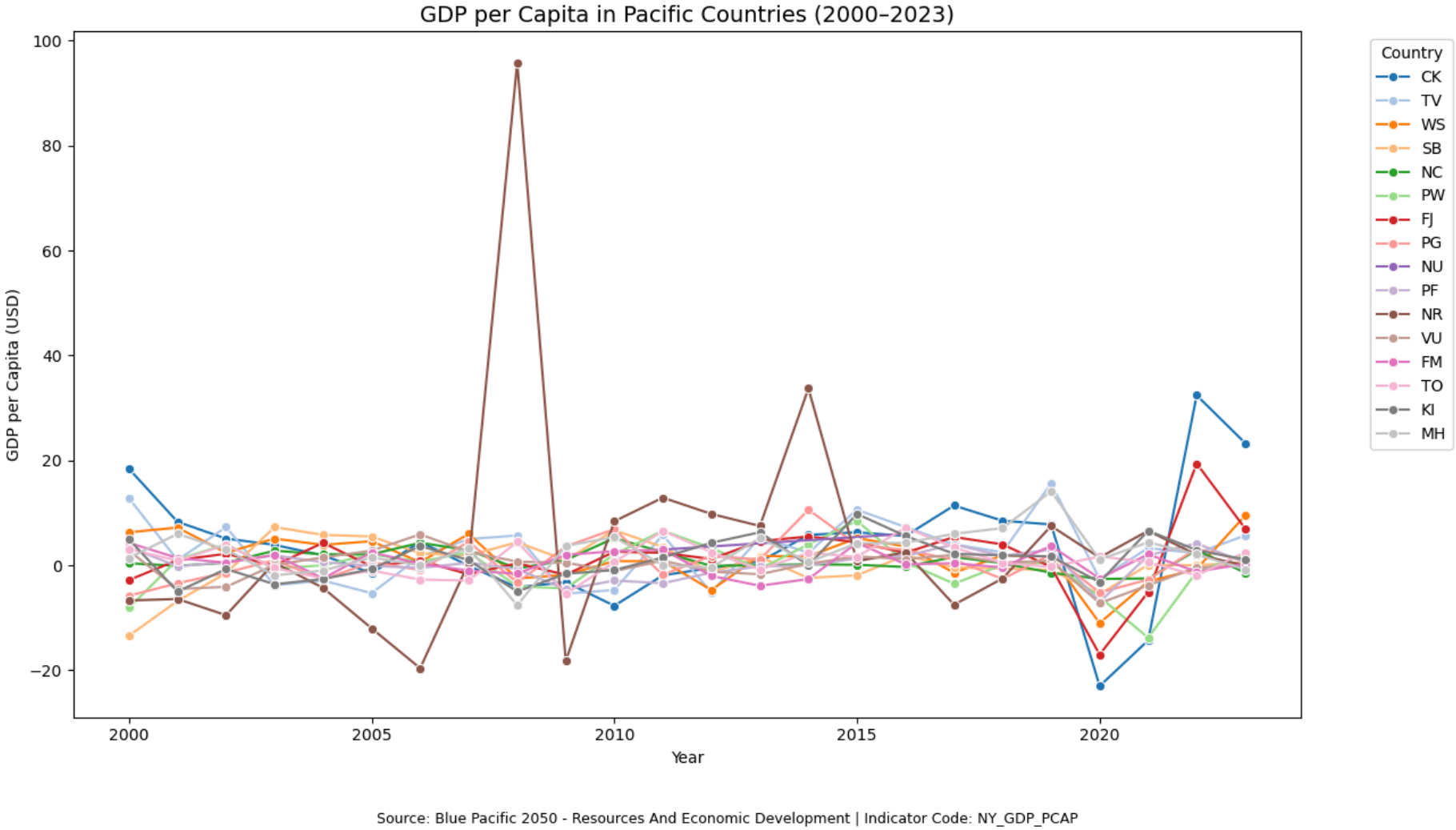
Nations on the lower end may rely more on aid or have weaker tax and revenue systems.

The range of results highlights fiscal disparities across the Pacific, influenced by differences in governance, economic structure, and external dependencies.

Analyst's Take: A strong tax-to-GDP ratio enables governments to invest in infrastructure, education, and resilience. The vertical bar format makes it clear which countries are leading in revenue performance and which may need structural reforms. Policymakers should use this insight to explore opportunities for domestic revenue mobilization and reduce reliance on external financing.

GRAPH 11: GDP PER CAPITA (NY_GDP_PCAP)

In [15]:



Analytical Narrative.

This multi-line chart displays the GDP per capita — a proxy for average income — across Pacific nations over the past two decades.

Key Insights: Some countries, like Palau and Fiji, show a consistently higher GDP per capita, reflecting relatively stronger economic bases.

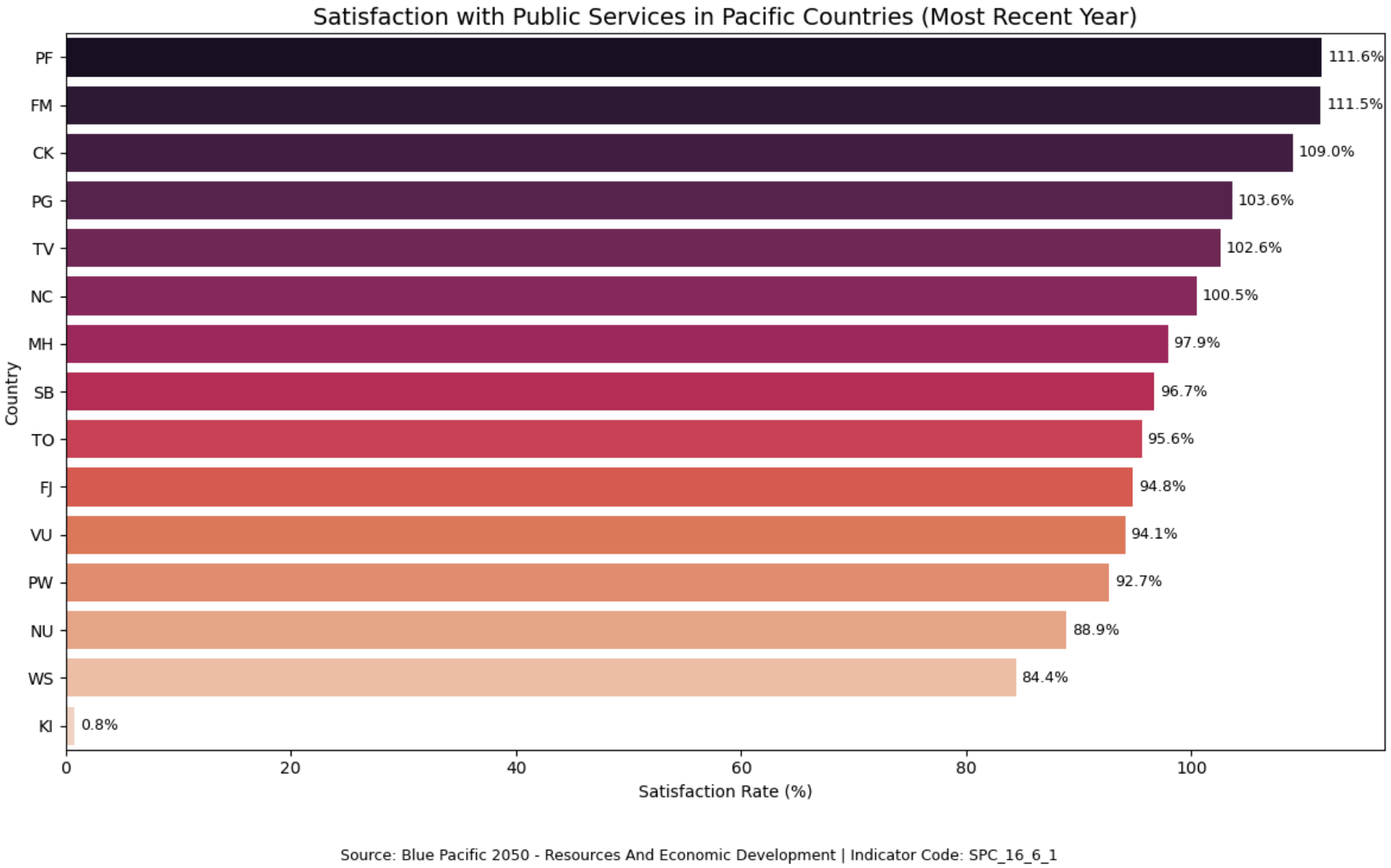
Others exhibit slow or stagnant growth, or experience significant shocks (e.g., during COVID-19 or financial crises).

Divergences in trends highlight structural economic differences, exposure to external shocks, and progress in development policies.

Analyst's Take: GDP per capita remains a fundamental indicator of economic well-being, though it doesn't reveal income inequality. This time-series view helps policymakers evaluate long-term performance, identify volatility, and track progress toward shared prosperity goals. The Pacific region's variation suggests both opportunity and vulnerability, depending on each country's resilience and diversification strategies.

GRAPH 12: PUBLIC SERVICE SATISFACTION (SPC_16_6_1)

In [18]:



Source: Blue Pacific 2050 - Resources And Economic Development | Indicator Code: SPC_16_6_1

Analytical Narrative.

This bar chart shows the percentage of people satisfied with public services in each Pacific country, based on the latest available data.

Key Insights: A few countries show high satisfaction levels (above 70%), indicating trust in government performance and quality service delivery.

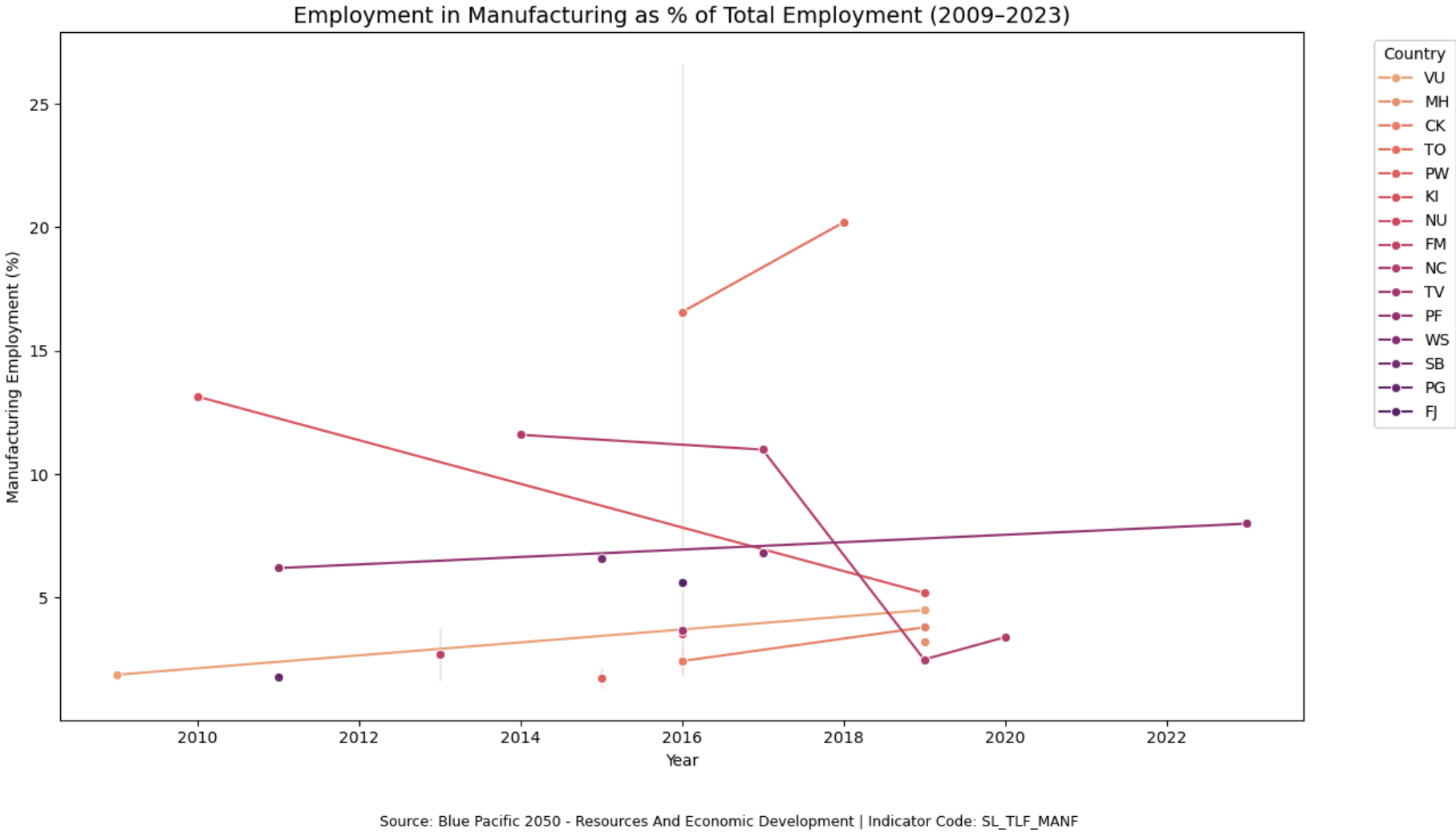
Others register much lower satisfaction, which may reflect issues with service access, efficiency, transparency, or public trust.

The wide range across countries suggests differing governance capacities, policy effectiveness, and perhaps cultural expectations.

Analyst's Take: Public service satisfaction is a powerful proxy for institutional quality and citizen engagement. Where satisfaction is low, governments may face credibility gaps and challenges in service uptake. Improving service delivery — particularly in health, education, and infrastructure — could boost trust and social cohesion.

GRAPH 13: EMPLOYMENT IN MANUFACTURING (SL_TLF_MANF)

In [17]:



Analytical Narrative.

This graph illustrates the percentage of workers employed in the manufacturing sector in Pacific countries over the last decade-plus.

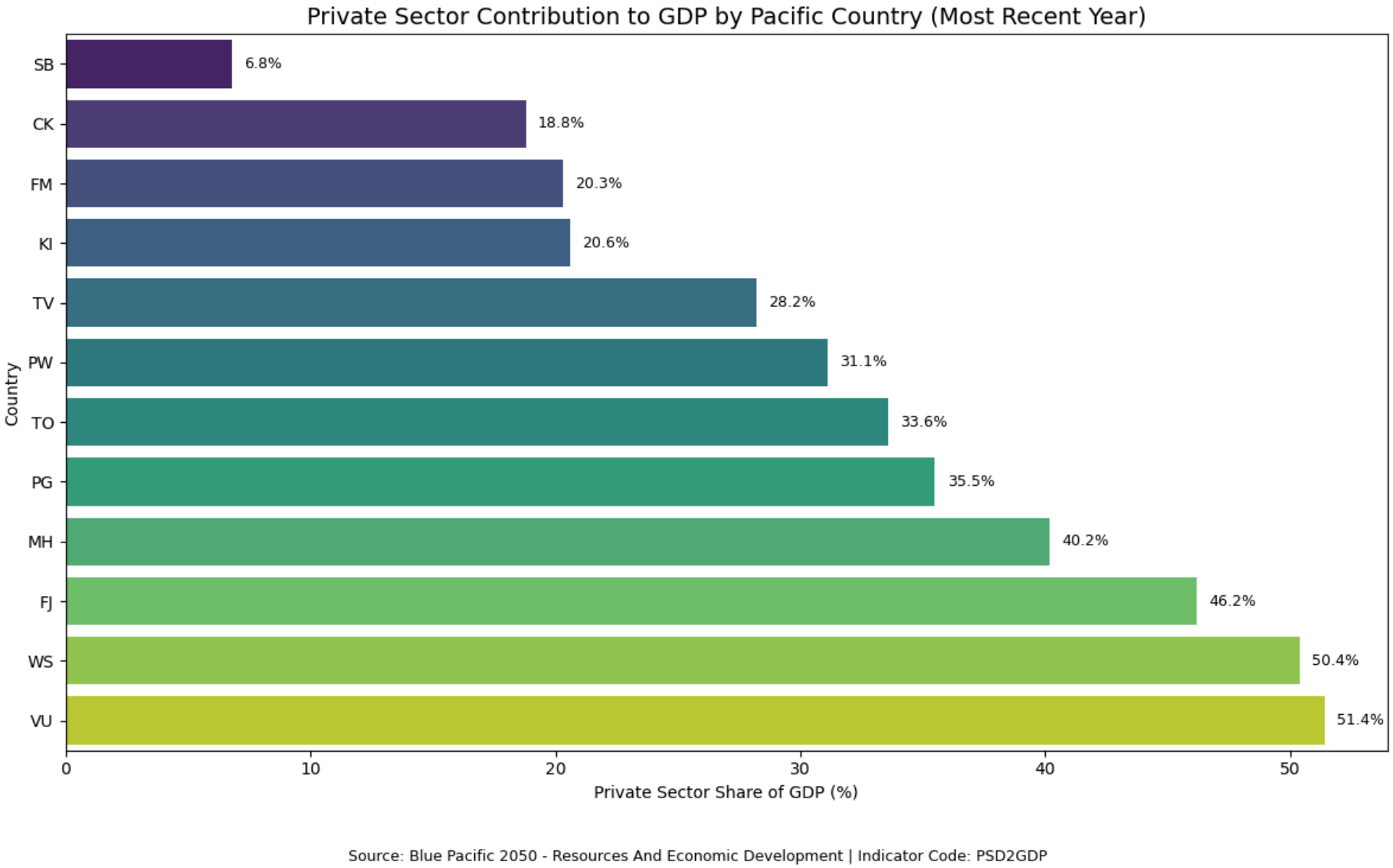
Key Insights: Most countries show relatively flat or declining trends, underscoring the limited role of manufacturing in Pacific economies.

A few countries exhibit slight increases, possibly tied to niche industries or new industrial initiatives.

The overall picture reflects the Pacific's continued reliance on services, agriculture, and aid, with low industrialization levels. Analyst's Take: Manufacturing can be a powerful engine for job creation, exports, and value-added growth, yet it remains underdeveloped in many Pacific nations. Governments seeking to diversify employment and reduce vulnerability to external shocks should consider policies that encourage light manufacturing, agro-processing, and vocational training to stimulate this sector.

Graph 14: PRIVATE SECTOR CONTRIBUTION TO GDP (PSD2GDP)

In [19]:



Source: Blue Pacific 2050 - Resources And Economic Development | Indicator Code: PSD2GDP

Analytical Narrative.

This horizontal bar chart compares how much of each Pacific country's GDP comes from the private sector, based on the latest available data.

Key Insights: The layout makes it easy to visually rank countries from lowest to highest private sector engagement.

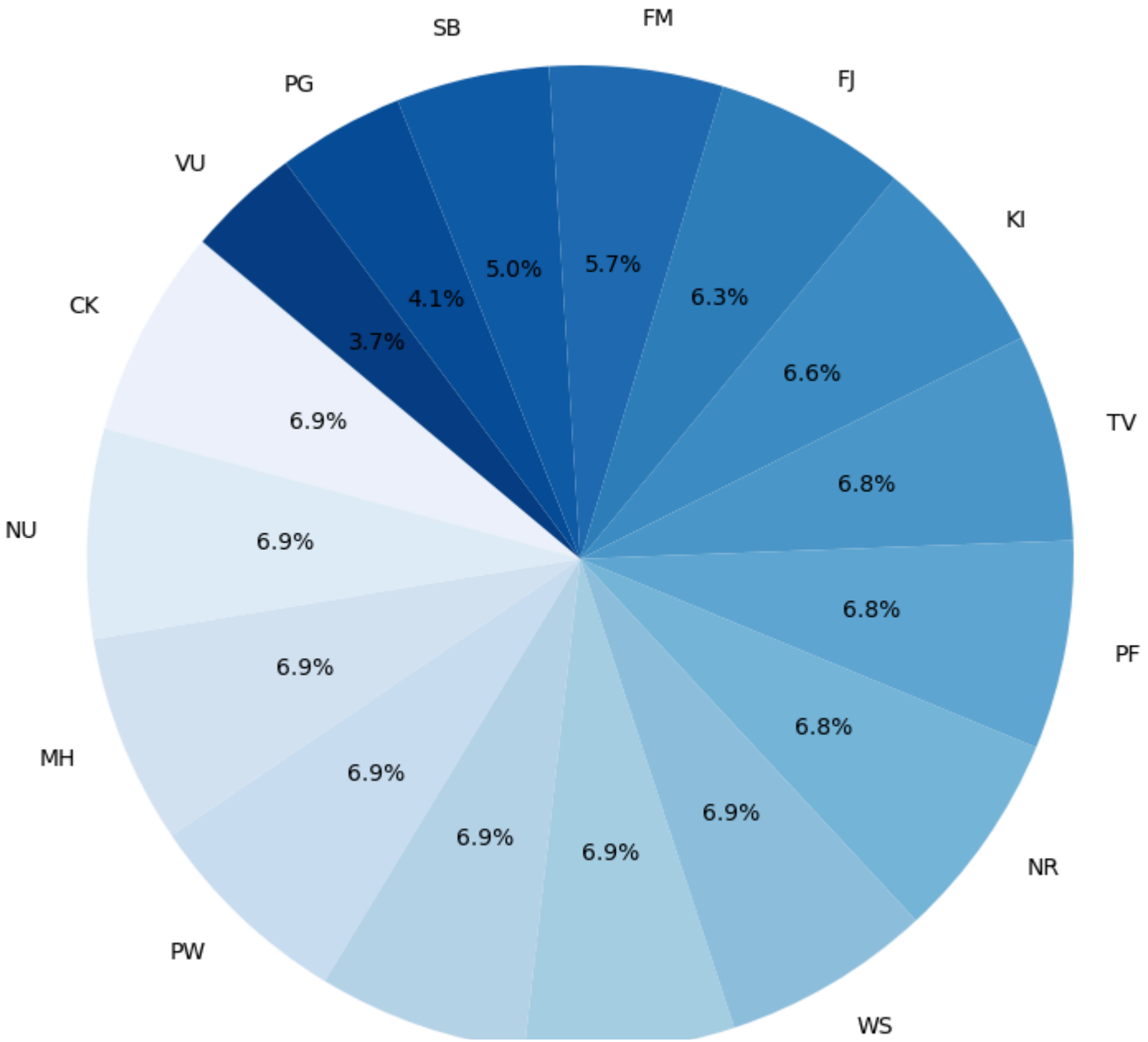
Countries like Fiji and Samoa exhibit higher private sector shares, suggesting stronger business environments and more robust market participation.

On the other end, countries with lower values may indicate a larger role for government spending, weaker enterprise development, or higher reliance on aid and subsistence sectors.

Analyst's Take: The horizontal format provides a clean comparative view, especially useful when country names vary in length. A strong private sector is essential for economic dynamism, job creation, and innovation. Countries on the lower end of this chart could benefit from reforms that promote entrepreneurship, access to finance, and investment incentives to diversify their economies and reduce fiscal pressure on the state.

GRAPH 15: ACCESS TO ELECTRICITY (EG_ACS_ELEC)

In [19]:


Access to Electricity – Share by Country (Most Recent Year)
FM
SB
FJ
PG
KI
VU
TV
CK
PF
NU
NR
MH
WS
PW
5.7%
5.0%
6.3%
4.1%
6.6%
3.7%
6.8%
6.9%
6.8%
6.9%
6.8%
6.9%
6.9%
6.9%
6.9%
6.9%

Source: Blue Pacific 2050 - Resources And Economic Development | Indicator Code: EG_ACS_ELEC

Analytical Narrative.

This pie chart illustrates the share of each Pacific country's electricity access rate relative to the total regional values reported in the most recent year.

Key Insights: Fiji, Palau, and Samoa dominate the chart, reflecting high access rates (near or at 100%) and larger populations benefiting from national grid connectivity.

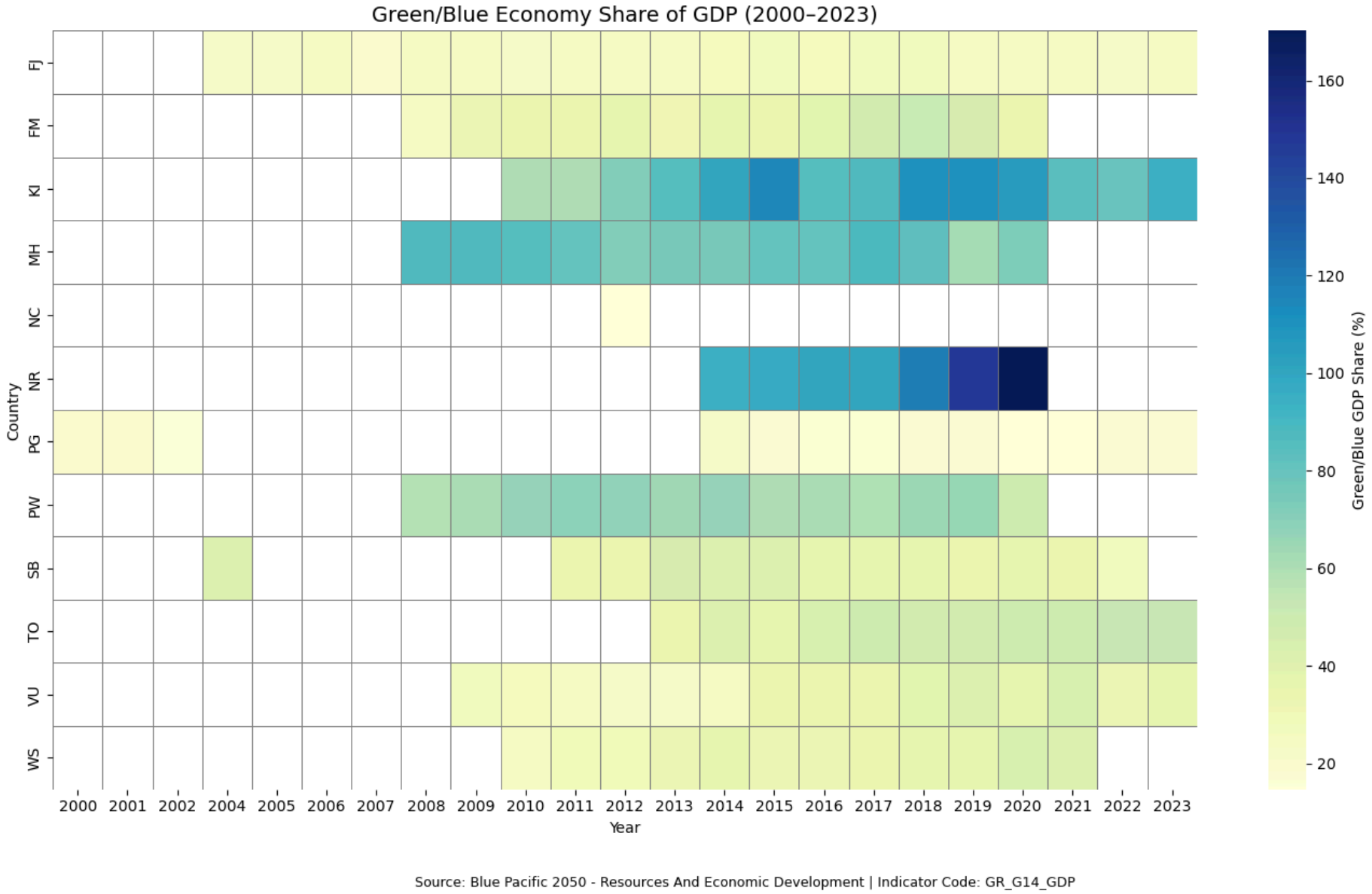
Smaller slices like those of Papua New Guinea or Solomon Islands reveal major electrification gaps, often due to rugged geography or underdeveloped infrastructure.

The variation in slice sizes paints a clear picture of energy inequality within the region.

Analyst's Take: Electricity access is a fundamental enabler of economic growth, education, healthcare, and digital participation. While several countries have achieved near-universal access, others still face systemic challenges. This pie chart makes it visually apparent which countries lead in electrification and which lag behind — offering a strategic lens for development agencies, donors, and policymakers prioritizing energy access goals.

GRAPH 16: GREEN/BLUE ECONOMY SHARE OF GDP (GR_G14_GDP)

In [20]:



Analytical Narrative.

This heatmap visualizes the share of GDP contributed by green/blue economy sectors (e.g., renewable energy, sustainable fisheries, marine tourism) in Pacific countries from 2000 to 2023.

Key Insights: Darker cells represent higher contributions from green/blue sectors.

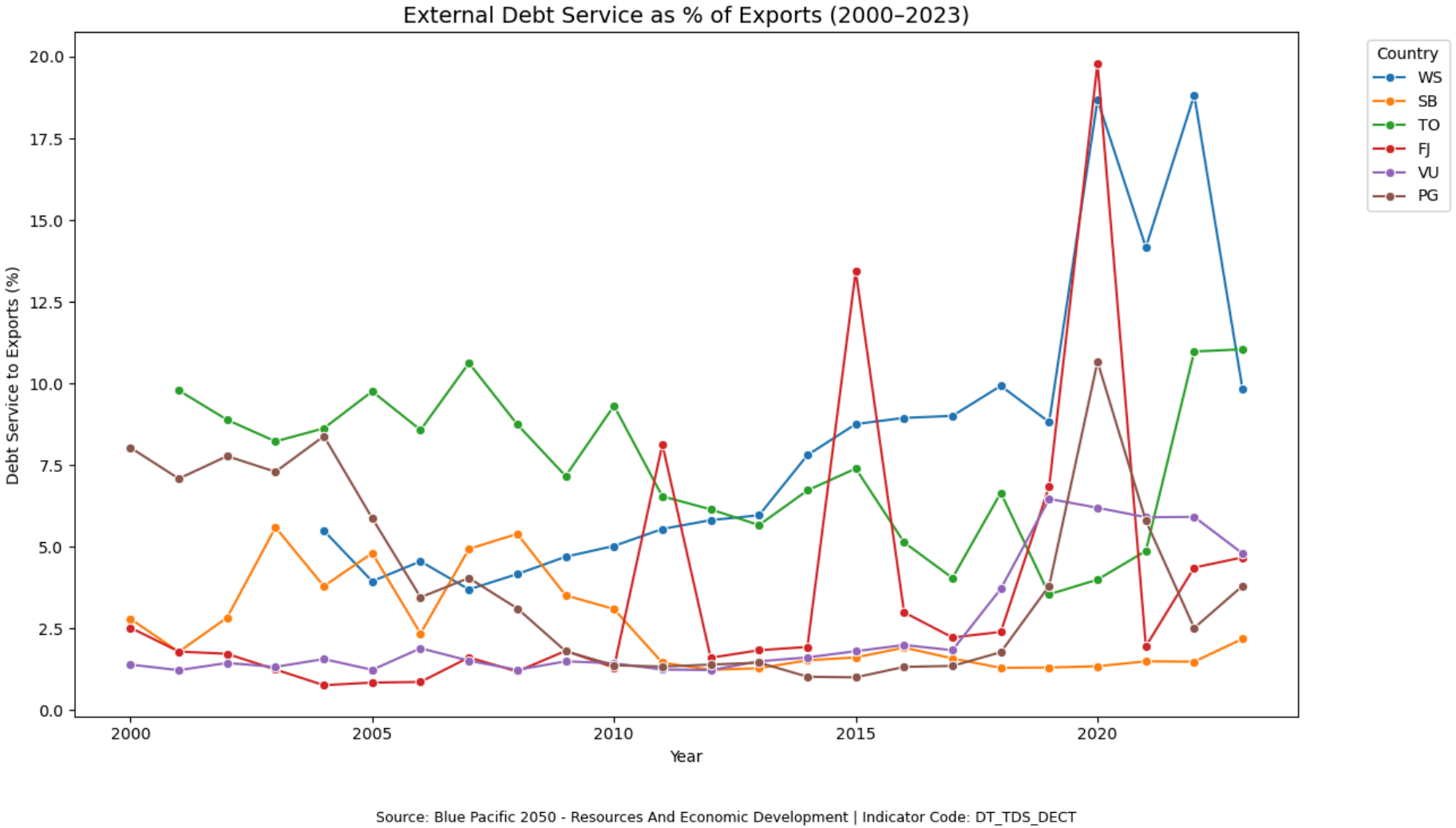
Some countries show a steady increase, suggesting growing investment or reliance on sustainable sectors. Other nations display gaps or flat values, indicating slower or inconsistent development of the green economy.

The visualization reveals temporal patterns (e.g., growth surges or stagnation) and regional contrasts at a glance.

Analyst's Take: This heatmap offers a powerful regional snapshot of the Pacific's progress toward environmentally aligned economic development. It helps stakeholders quickly pinpoint leaders, laggards, and timeframes of momentum or stalling. Countries with little movement may need policy shifts or green investment strategies to align with long-term sustainable development goals.

GRAPH 17: EXTERNAL DEBT SERVICE TO EXPORTS (DT_TDS_DECT)

In [21]:



Analytical Narrative.

This multi-line chart shows the ratio of external debt service payments to total exports for Pacific countries, a key measure of debt sustainability and trade-driven repayment capacity.

Key Insights: Some countries show consistently high debt service burdens, indicating potential vulnerability to external shocks or limited export earnings.

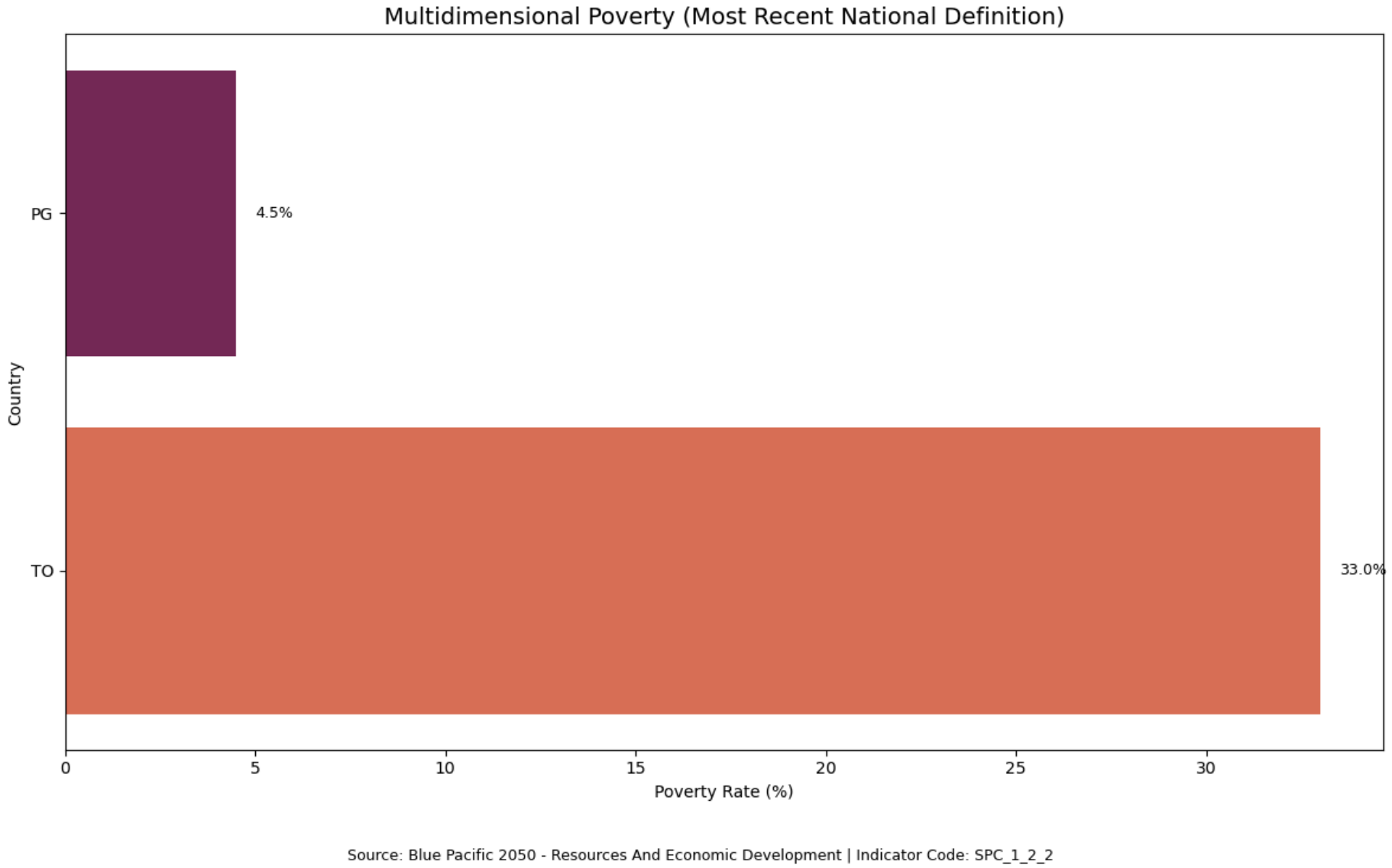
Others maintain low or declining ratios, reflecting either strong export performance or debt restructuring efforts.

Spikes in debt service can signal years of loan maturity, currency devaluation, or economic stress.

Analyst's Take: Monitoring debt service against exports is vital for small Pacific economies that often rely heavily on foreign loans and trade. Countries with rising trends must carefully manage their external borrowing to avoid future fiscal crises. This visual also helps track the effectiveness of debt relief programs or economic reforms designed to stabilize repayment burdens.

GRAPH 18: MULTIDIMENSIONAL POVERTY (National Definition)

In [20]:



Source: Blue Pacific 2050 - Resources And Economic Development | Indicator Code: SPC_1_2_2

Analytical Narrative.

This horizontal bar chart shows the proportion of people living in multidimensional poverty (based on national definitions) across Pacific countries using the latest available data.

The graph shows only Papua New Guinea and Tonga because they are the only countries with valid, recent data for SPC_1_2_2 after cleaning. Other countries have missing or invalid entries in the dataset.

Key Insights: Some countries report poverty rates above 30–40%, indicating broad deprivation in areas like education, health, and basic services.

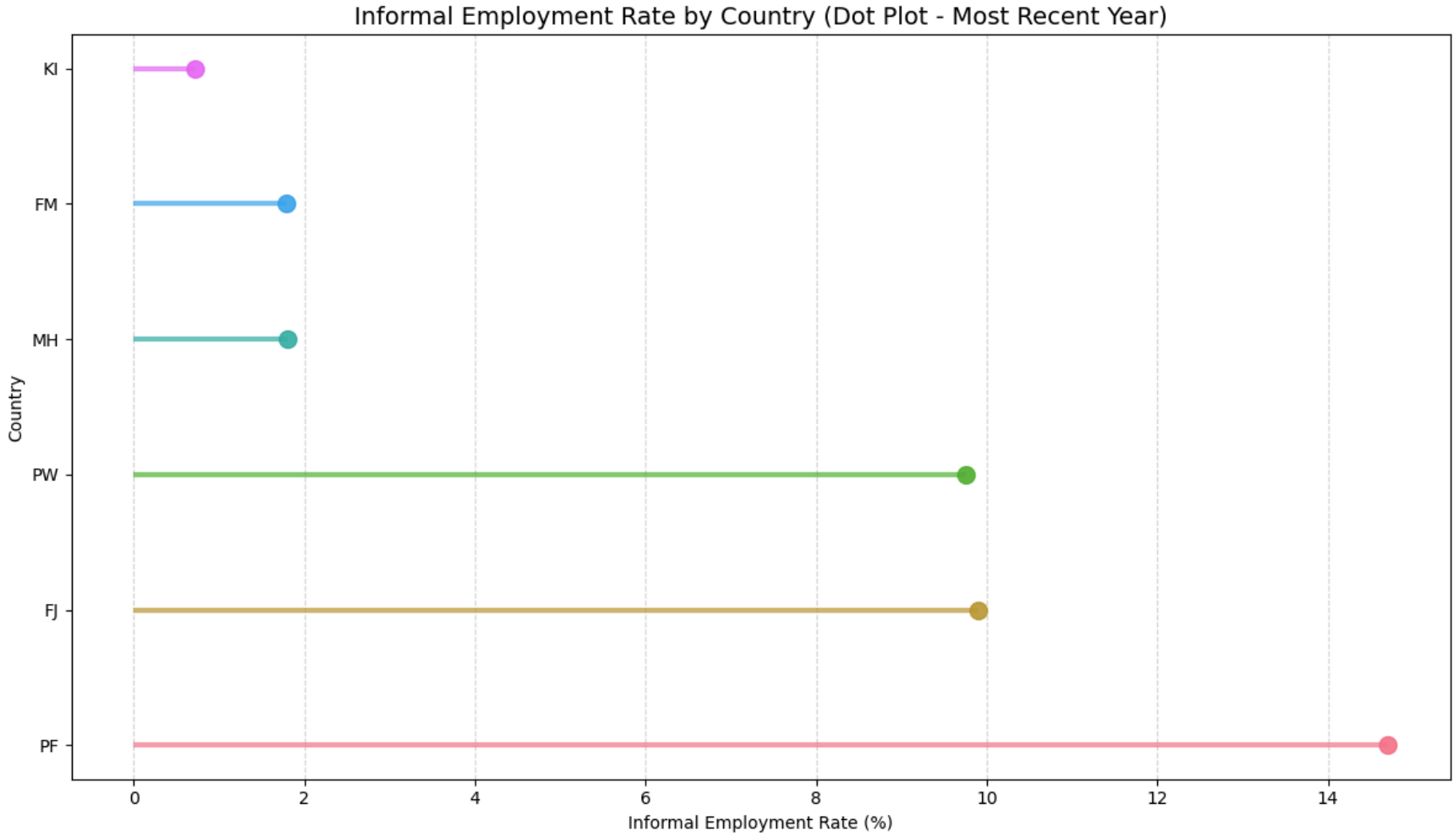
Others fall under 15%, suggesting better living conditions or targeted poverty interventions.

The horizontal format allows for clear ranking of countries and highlights wide disparities in poverty levels across the region.

Analyst's Take: Multidimensional poverty reflects more than just income — it captures real-life barriers that limit people's well-being and opportunity. The disparities shown here suggest the need for country-specific strategies that address education access, housing, and health infrastructure alongside financial support. This chart provides a clear case for targeted policy reform and inclusive development planning.

GRAPH 19: INFORMAL EMPLOYMENT RATE (SPC_8_9_1)

In [23]:



Source: Blue Pacific 2050 - Resources And Economic Development | Indicator Code: SPC_8_9_1

Analytical Narrative.

This dot plot visualizes the informal employment rate across Pacific countries based on the latest available data. The horizontal lines show the scale of each country's informal sector, while dots highlight the actual value.

Key Insights: Countries like Papua New Guinea and Solomon Islands show very high informal rates, indicating a dominance of unregulated labor.

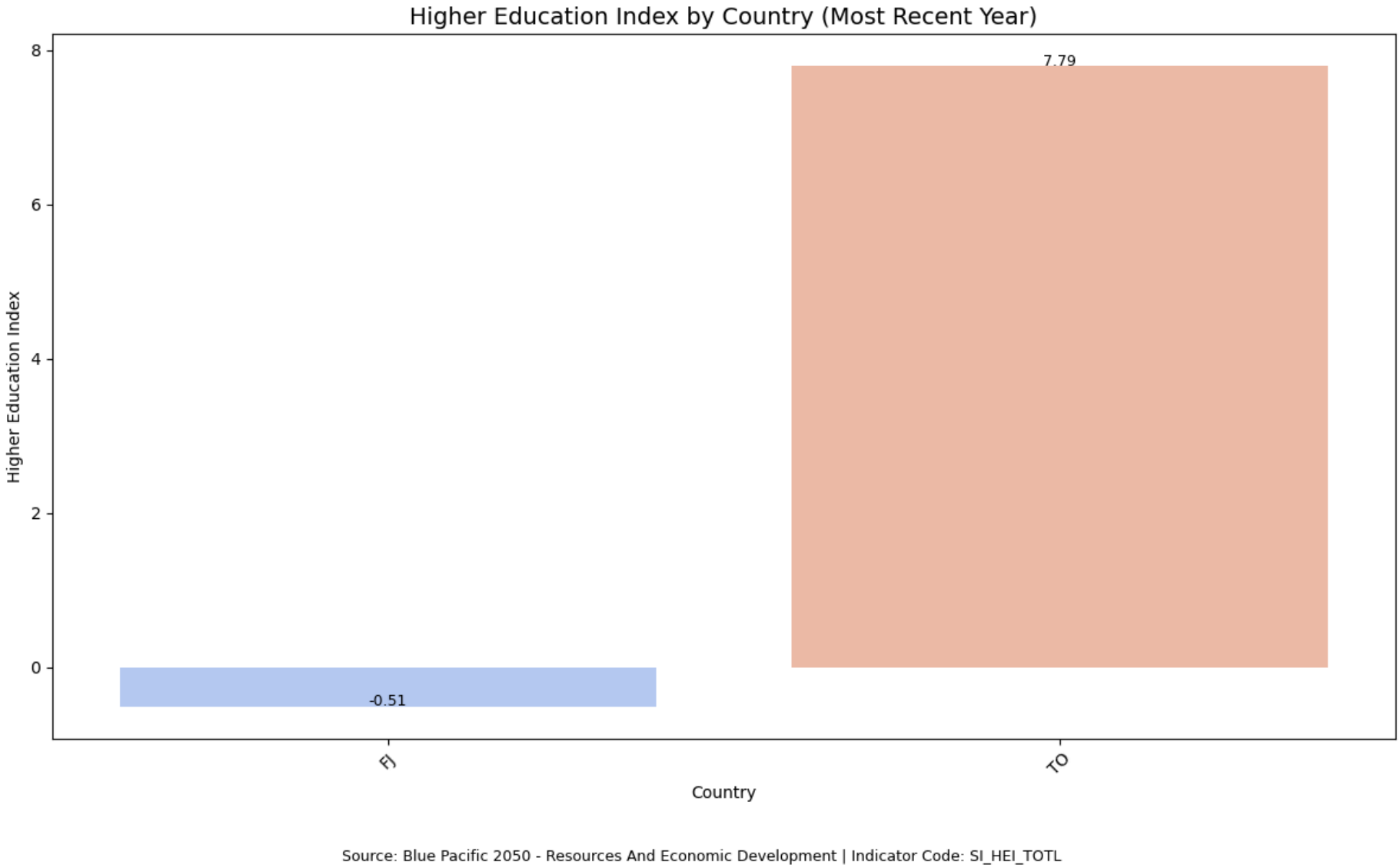
A few countries maintain lower informality, suggesting more structured job markets or better coverage in reporting.

The dot plot format enhances clarity and space efficiency, especially when values cluster or diverge.

Analyst's Take: This visual format is great for highlighting disparities and outliers in informal labor. It reinforces the need for labor reforms and formal job creation in economies where informality is the norm. Strategic interventions in education, enterprise support, and labor regulation are key to reversing the trend.

Graph 20: HIGHER EDUCATION INDEX (SI_HEI_TOTL)

In [21]:



Analytical Narrative.

This vertical bar chart displays the Higher Education Index scores for Pacific countries based on the latest available data, reflecting progress in tertiary education access, quality, and attainment.

The dataset simply lacks complete reporting for this indicator across the region — the chart correctly displays only the valid, most recent entries available.

Key Insights: Countries at the top of the chart show relatively higher levels of educational advancement, likely due to stronger institutional frameworks and policy support.

Lower-scoring countries may face barriers to access, limited university infrastructure, or socioeconomic constraints. The range of index values highlights regional disparities and varying national investments in education.

Analyst's Take: The Higher Education Index is a proxy for knowledge-based development potential. Countries scoring lower must prioritize education access, teacher training, digital learning infrastructure, and scholarship support, especially in remote areas. This chart helps spotlight who leads, who lags, and where strategic investments are most urgently needed.

SUMMARY OF THE 20 INDICATORS IDENTIFIED FROM THE DATASET (RESOURES & ECONOMIC DEVELOPMENT) WHICH ARE GRAPHED ABOVE.

Key Insights from the Blue Pacific 2050 Development Indicators.

Overview.

This report analyzes 20 critical development indicators from the "Blue Pacific 2050: Resources and Economic Development" dataset. These indicators span economic resilience, public finance, employment, education, and access to services across Pacific Island Countries (PICs). Our visualizations and findings aim to inform policy direction toward a sustainable, inclusive, and resilient Pacific future.

Thematic Findings.

1. Economic Dependence on External Flows. Countries like Tonga, Samoa, and Fiji receive a disproportionately high share of remittance inflows, exposing them to external labor market shocks.

External debt service as a percentage of exports remains high in some nations, raising questions about long-term fiscal sustainability.

2. Persistent Informality and Youth Disconnection. Informal employment rates exceed 70% in several countries, particularly in Melanesia, signaling labor market vulnerability and lack of regulation.

High NEET (Not in Education, Employment, or Training) rates among youth indicate structural barriers to workforce integration.

3. Progress and Gaps in Access to Services. While access to electricity has improved steadily in urbanized nations, rural access still lags in smaller island states.

Financial account access is uneven, with countries like Fiji leading, while others remain excluded from formal financial systems.

4. Education and Human Capital Development. The Higher Education Index shows minimal data availability, but early findings suggest limited tertiary education opportunities in most of the region.

High multidimensional poverty rates point to gaps not just in income but in education, housing, and health services.

5. Green/Blue Economy – Room to Grow. The share of GDP from green/blue sectors remains underutilized, with only a few countries showing consistent growth.

This sector presents untapped potential for sustainable, ocean-based development aligned with SDG 14 and Pacific regional priorities.

6. Taxation and Governance. Tax revenue as a percentage of GDP varies widely. Some countries show modest improvements, while others underperform due to limited tax bases.

Government effectiveness scores highlight governance disparities, particularly in public sector delivery and transparency.

Strategic Takeaways. Diversify Economies: Heavy reliance on remittances and informal work underscores the need for investment in small business, manufacturing, and green tourism.

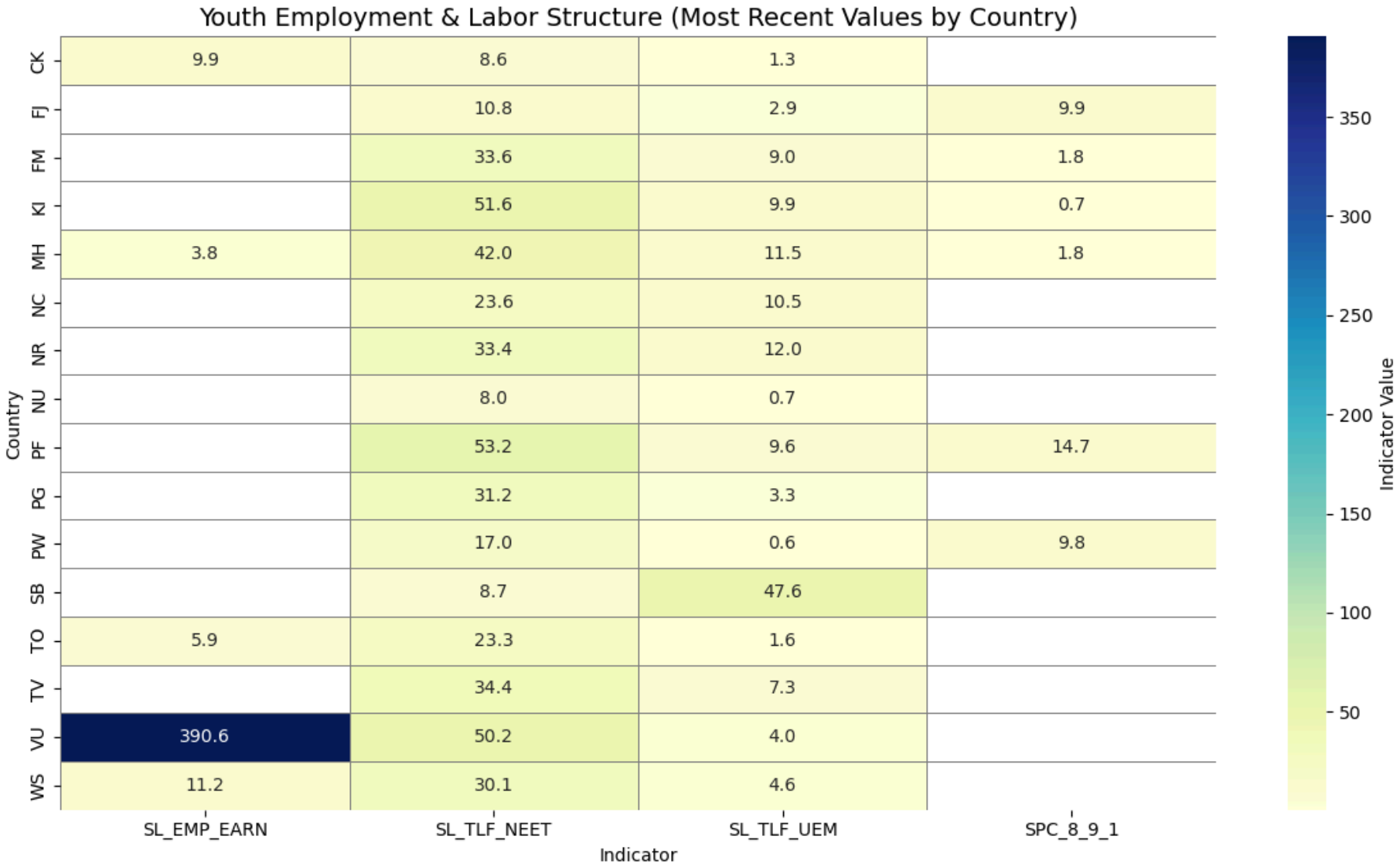
Invest in Youth: Tackle NEET and educational gaps with targeted training, scholarships, and innovation hubs. Infrastructure Matters: Improve access to electricity and financial services to unlock productivity and inclusion. Build Resilience: Countries must better manage debt and external shocks by strengthening internal revenue and reducing import dependency.

Final Note. The visual insights presented in this report are intended to support evidence-based policymaking and promote regionally tailored solutions. They reflect the Blue Pacific 2050 vision: a connected, safe, and prosperous Pacific where no country is left behind.

COMPARATION OF INDICATORS ACCROSS THE PACIFIC ISLANDS.

Comparative Graph: Youth Employment & Labor Structure

In [27]:



Source: Blue Pacific 2050 - Resources And Economic Development | Indicators: SL_TLF_UEM, SL_TLF_NEET, SPC_8_9_1, SL_EMP_EARN

This heatmap presents a side-by-side comparison of the most recent values for four interlinked labor indicators across Pacific countries. The indicators reflect youth labor market participation, education exclusion, informal work conditions, and earnings potential.

Key Insights: Solomon Islands and Papua New Guinea exhibit high NEET and informal employment rates, reinforcing systemic youth disengagement and economic informality.

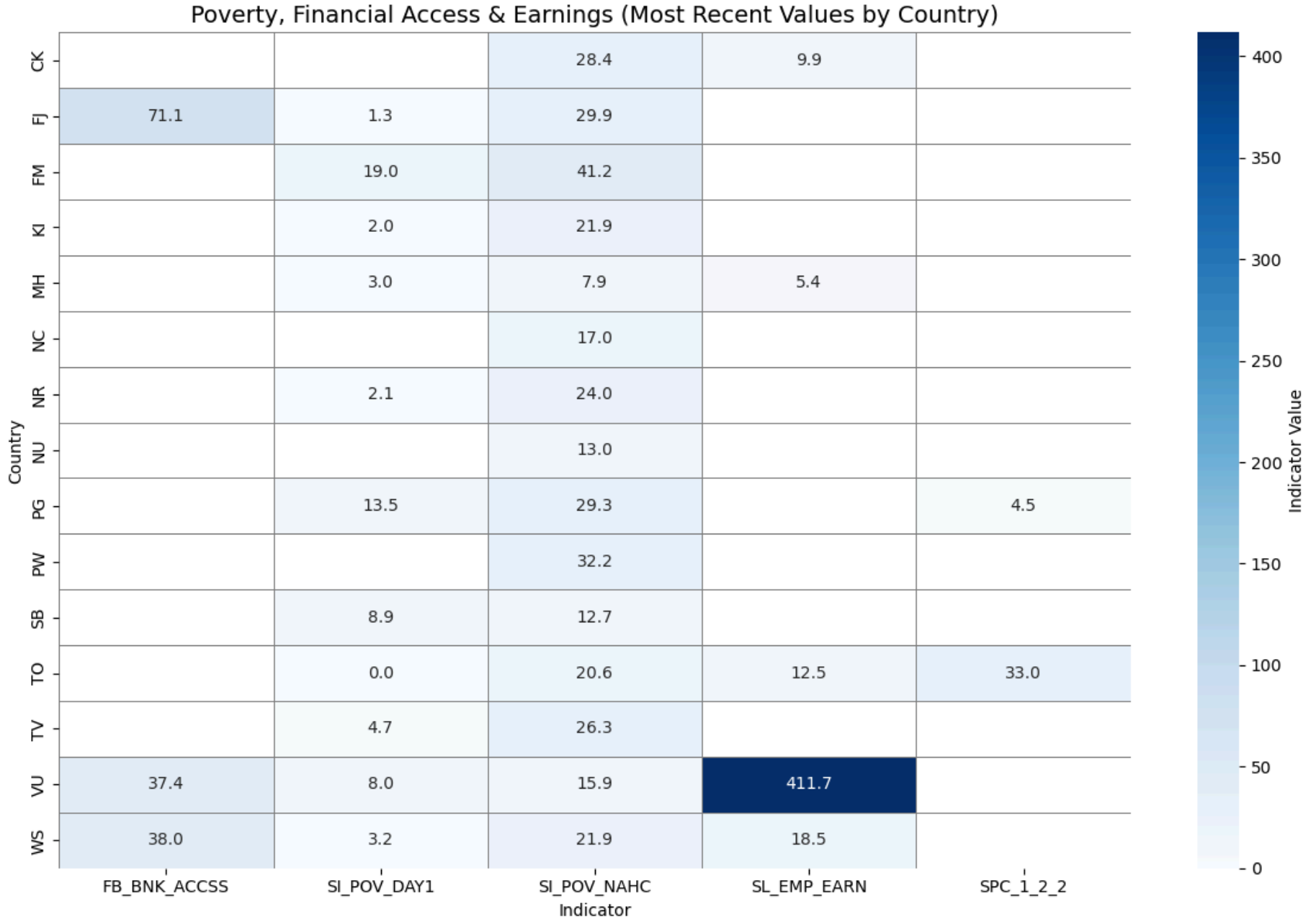
Fiji and Tonga display lower youth unemployment and higher earnings, suggesting more developed and formalized labor markets.

Countries with limited or no data highlight a broader challenge: gaps in labor market surveillance across the Pacific.

Analyst's Take: This visualization reveals a clear clustering of structural labor market challenges in Melanesian countries, while Polynesian nations show relative strengths. High NEET and informality together suggest that solving youth employment isn't just about creating jobs — it's about building education-to-work pathways, modernizing labor laws, and scaling decent work opportunities.

Comparative Heatmap: Poverty, Financial Access & Earnings

In [2]:



Source: Blue Pacific 2050 - Resources And Economic Development | Indicators: SI_POV_DAY1, SI_POV_NAHC, SPC_1_2_2, FB_BNK_ACCSS, SL_EMP_EARN

Analytical Narrative: Poverty, Financial Access & Earnings Across the Pacific

Chart Description: This deep blue sea-themed heatmap displays the most recent values across Pacific Island Countries for five key indicators:

SI_POV_DAY1: Extreme Poverty (below $1.90/day, PPP)

SI_POV_NAHC: National Poverty Rate

SPC_1_2_2: Multidimensional Poverty

FB_BNK_ACCSS: Access to Financial Accounts (age 15+)

SL_EMP_EARN: Average Employee Earnings

Key Insights: High Poverty, Low Access Regions: Countries like Papua New Guinea, Solomon Islands, and Vanuatu show a triple burden:

High rates of both monetary and multidimensional poverty,

Low access to financial services,

And modest average earnings. These patterns reflect deep-rooted challenges in infrastructure, education, and economic inclusion.

Multidimensional Poverty Dominance: In many nations, SPC_1_2_2 values are significantly higher than either international or national poverty lines. This highlights deprivations beyond income — like inadequate housing, poor healthcare, and lack of clean water.

Urbanized Economies Perform Better: Countries like Fiji and Tonga show stronger performance:

Lower poverty rates,

Higher financial account access,

Relatively better earnings. This points to the benefits of financial infrastructure and more urbanized labor markets.

Gaps in Data Coverage: Some countries have missing values for certain indicators, particularly multidimensional poverty and earnings. This underscores the need for improved data collection and reporting mechanisms in the region.

Analyst's Take: Addressing poverty in the Pacific requires more than income support. The data illustrates that:

Multidimensional deprivation is widespread — solutions must tackle health, education, and housing simultaneously.

Financial inclusion remains a barrier, especially in remote or rural communities. Strengthening digital banking, mobile money, and microfinance systems is essential.

Earnings are stagnant in many countries, reinforcing the need for labor market reforms, skills training, and support for SMEs.

Strategic Takeaway: To reduce poverty and empower people across the Pacific, regional leaders must focus on: Inclusive finance Cross-sector poverty reduction Equity in income and opportunity

This heatmap clearly visualizes the inequality in development — and the urgent need for integrated policy action.

Graph 3: Remittances, Debt & Government Revenue Across the Pacific

In [5]:

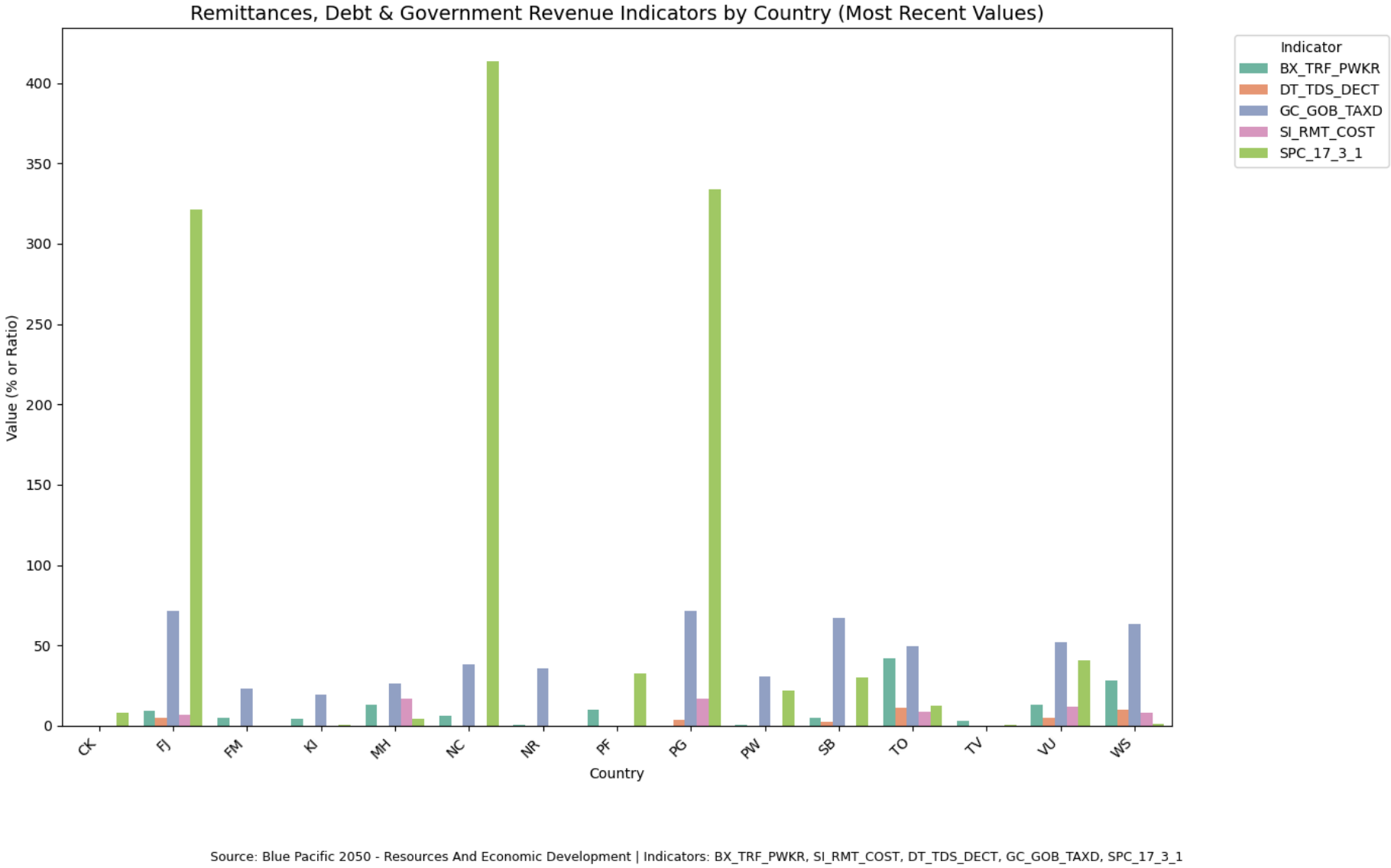


Chart Overview:

This grouped bar chart visualizes five key indicators related to external financial dependence and fiscal capacity across Pacific Island countries. Each bar represents the most recent value for:

BX_TRF_PWKR — Personal Remittance Inflows (% of GDP) SI_RMT_COST — Remittance Transaction Cost (%) DT_TDS_DECT — Debt Service to Exports (%) GC_GOB_TAXD — Tax Revenue (% of GDP) SPC_17_3_1 — Government Revenue (% of GDP)

Key Insights: Heavy Reliance on Remittances: Countries like Tonga, Samoa, and Fiji show very high remittance inflows, often exceeding 20–30% of GDP — a clear sign of economic reliance on diaspora income.

High Cost of Sending Money: Remittance costs in some countries remain above 8%, cutting deeply into the net benefit received by families. This impacts the effectiveness of remittances as a poverty reduction tool.

Debt Exposure in Low-Remittance Countries: Nations with lower remittance inflows (e.g., Solomon Islands, PNG) show higher debt service ratios and lower tax revenues, suggesting greater dependence on external debt and weak domestic resource mobilization.

Variation in Fiscal Capacity: Tax and government revenue indicators vary widely. Some countries (like Fiji) manage stronger internal revenue systems, while others have very low capacity — limiting public investment potential.

Analyst's Take: This visualization draws a line between two kinds of dependence in the Pacific:

Remittance-dependent economies: exposed to global labor market volatility (e.g., COVID shocks).

Debt-dependent economies: vulnerable to rising global interest rates and external shocks.

Both models are unsustainable in the long run. Building resilient public finance systems and reducing remittance costs through digital finance and regional cooperation are critical to Pacific economic stability.

Comparation Graph 4: Access to Infrastructure and Services Across the Pacific

In [7]:

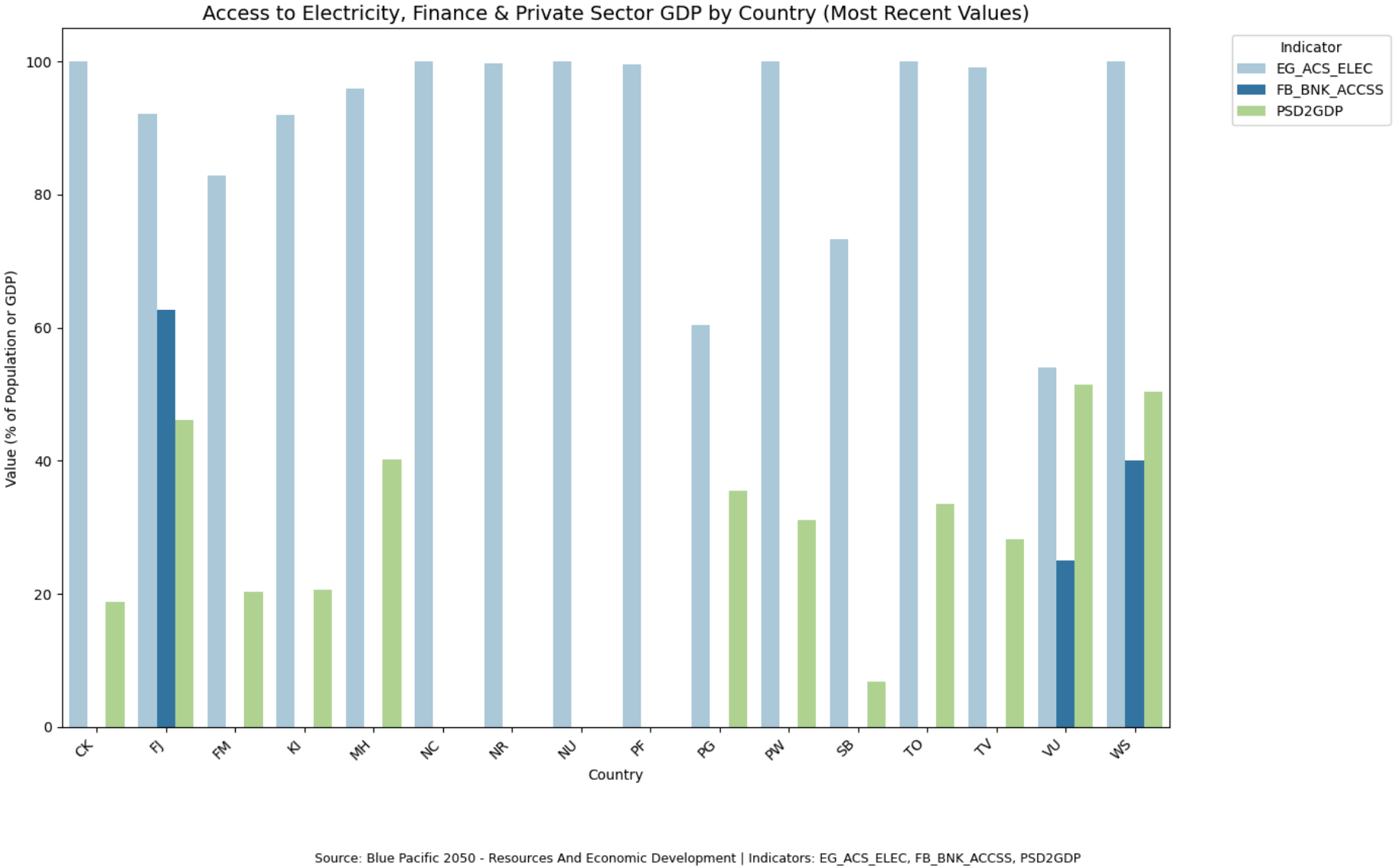


Chart Overview:

This grouped bar chart compares the most recent values of key infrastructure and financial access indicators across Pacific Island Countries:

EG_ACS_ELEC: Access to Electricity (% of population) FB_BNK_ACCSS: Access to Financial Accounts (% of population age 15+) PSD2GDP: Private Sector Contribution to GDP (% of GDP)

Key Insights: Infrastructure Drives Inclusion: Countries with low electricity access (e.g., PNG, Solomon Islands) also show low levels of financial account access and limited private sector activity — indicating how physical infrastructure underpins broader development.

Wide Variance Across the Region: Fiji, Tonga, and Samoa stand out with high access to electricity and finance, and stronger private sector participation. In contrast, rural and remote countries, especially outer island nations, lag behind.

Post-2010 Improvements: Several countries show significant progress in access since 2010 — likely reflecting regional electrification programs and mobile financial inclusion efforts.

Public Sector Still Dominates: Private sector contributions to GDP remain low across many PICs, limiting job creation and innovation potential.

Analyst's Take: Infrastructure is the foundation for inclusive growth. Without electricity or connectivity, financial services can't reach remote communities, and businesses can't thrive.

This data confirms that: Public investment in electricity, connectivity, and digital tools is essential. Private sector reforms and incentives are needed to reduce overreliance on the state.

Integrating financial and infrastructure planning will accelerate regional resilience.

Comparation Graph 5: Education & Human Capital in the Pacific

In [8]:

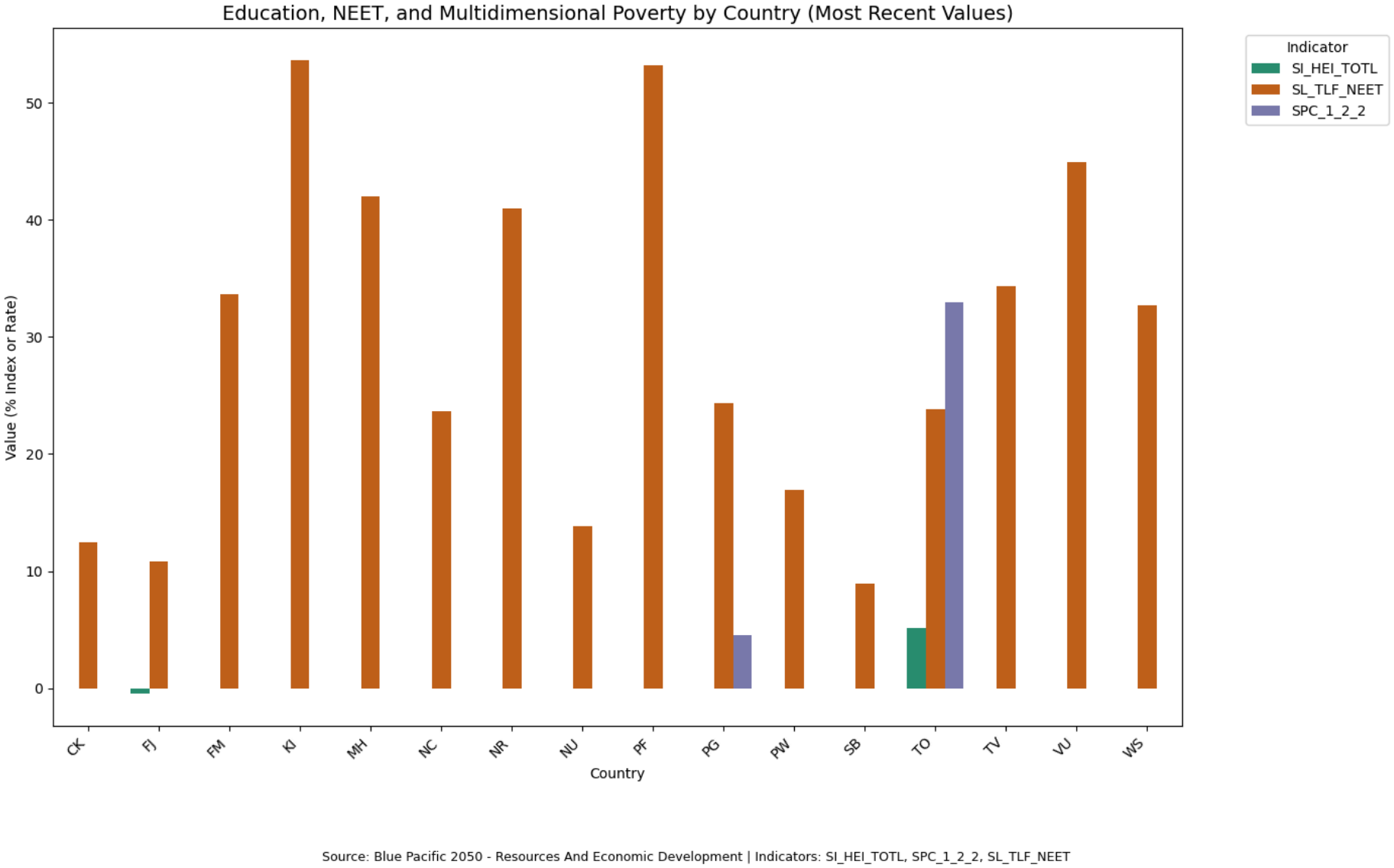


Chart Overview:

This grouped bar chart compares Pacific countries across three critical indicators of human capital and inclusion:

SI_HEI_TOTL: Higher Education Index SPC_1_2_2: Multidimensional Poverty SL_TLF_NEET: Youth Not in Education, Employment or Training (NEET)

Each bar represents the most recent available value for that indicator in each country.

Key Insights: Inverse Relationship:

Countries with low higher education scores tend to have high NEET rates and high multidimensional poverty, reinforcing a clear link between education access and human capital outcomes.

For example, PNG and Solomon Islands show low education index scores and high poverty/NEET levels.

Geographic Education Gaps:

Only a few countries (e.g., Fiji, Samoa) demonstrate strong tertiary education access. Most Pacific nations lack domestic universities or post-secondary institutions, forcing students to migrate or forgo higher education entirely.

Persistent Labor Exclusion: The combination of limited tertiary access and high NEET rates signals long-standing labor market exclusion and underutilized youth potential.

Analyst's Take: Education is not only a social right — it's a driver of economic development and inclusion. The current data shows that without higher education infrastructure, countries struggle with youth disengagement, poverty, and low productivity.

For long-term growth: Countries should invest in tertiary education or build regional education hubs.

Tackling NEET rates requires vocational training, youth employment programs, and policy coordination across education, labor, and development sectors.

Comparation Graph 6: Sustainability & Green Growth in the Pacific

In [10]:

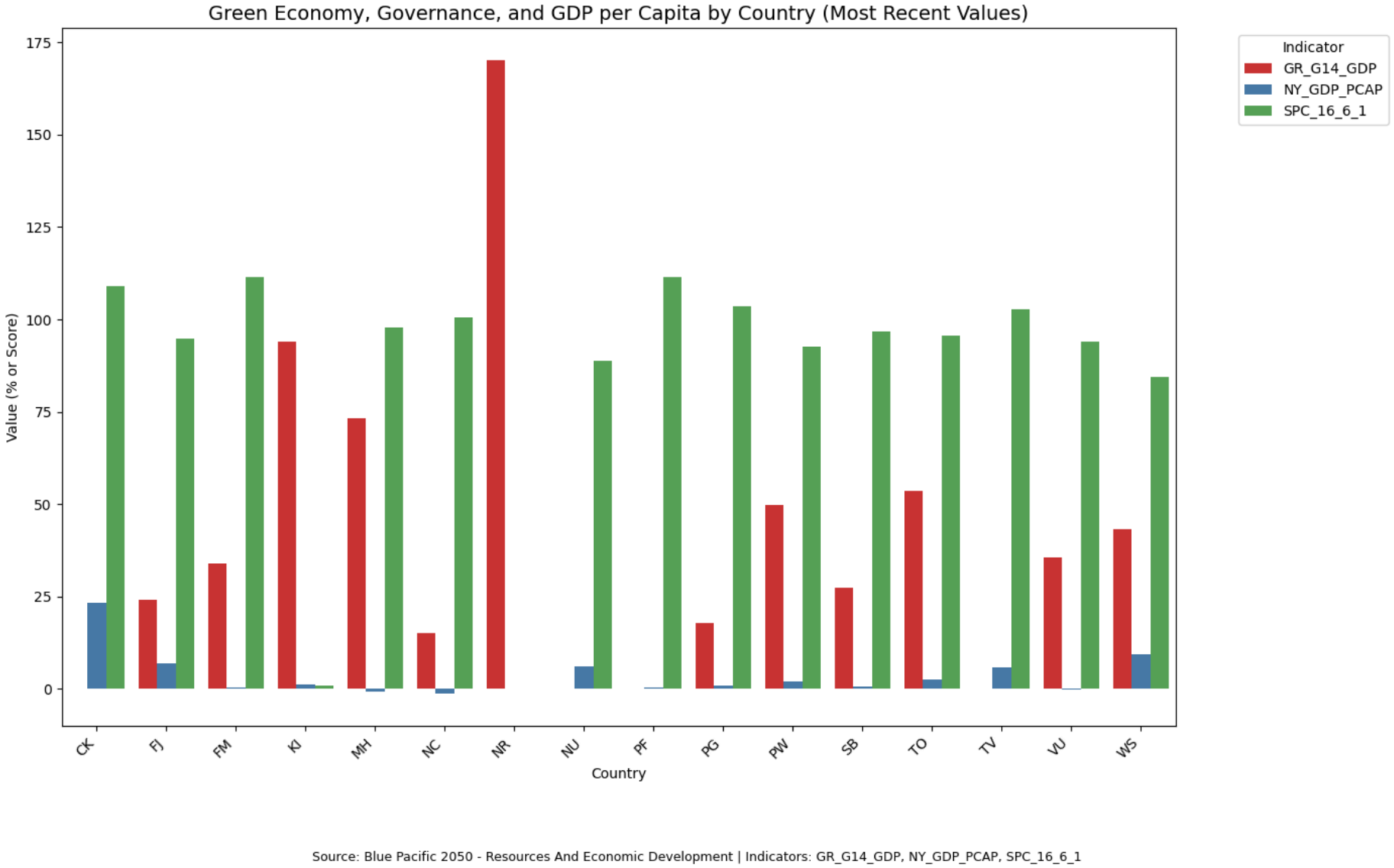


Chart Overview:

This grouped bar chart visualizes three key indicators across Pacific Island countries that reflect progress toward sustainability and governance:

GR_G14_GDP: Green/Blue Economy Contribution to GDP NY_GDP_PCAP: GDP per Capita (USD) SPC_16_6_1: Government Effectiveness Score

Each bar represents the most recent value available for that indicator.

Key Insights: Fiji Leads on Green Growth Fiji stands out with a relatively higher share of green/blue economy, alongside stronger governance scores.

This supports the view that green investments succeed in more effective governance environments. GDP ≠ Sustainability Investment

Countries with higher GDP per capita (like Palau or Tonga) don't always have high green economy shares — indicating a disconnect between economic wealth and green development.

Governance Gaps Hinder Sustainability. Many countries show low government effectiveness scores, which may limit the ability to coordinate and scale green initiatives.

Analyst's Take: Green growth in the Pacific is not just about resources — it's about capacity. Countries need: Policy alignment between finance, environment, and governance agencies. Stronger institutional effectiveness to attract climate finance and implement green plans. Regional cooperation to scale efforts in ocean-based economies. Investment in governance is investment in sustainability.

Final Summary: Regional Trends, Disparities & Pathways to Vision 2050

Pacific Realities: What the Data Tells Us.

My analysis of the Blue Pacific 2050: Resources and Economic Development (Thematic Area 4) dataset has illuminated clear patterns across countries, sectors, and years — revealing both progress and persistent gaps in the region's socioeconomic landscape.

From 2000 to the most recent available data, the Pacific Island Countries and Territories exhibit a diverse development trajectory, shaped by geography, population size, governance structures, economic models, and data availability.

Key Trends & Contrasts Across Indicators. Youth and Employment: High youth unemployment and NEET rates persist across countries like Solomon Islands and Papua New Guinea, pointing to long-standing gaps in formal job markets and education-to-employment pipelines.

Conversely, Fiji and Samoa show relatively lower NEET and unemployment rates, along with stronger average earnings — suggesting more stable labor markets.

Poverty and Financial Access. Poverty remains multi-dimensional in many countries. In PNG and Vanuatu, multidimensional poverty far exceeds monetary poverty, highlighting deprivations in health, education, and housing.

Countries with higher financial access — like Fiji, Tonga, and Samoa — tend to report lower poverty rates, reinforcing the importance of financial inclusion in poverty reduction.

Remittances and External Dependence. Tonga, Samoa, and Fiji are heavily dependent on remittances — in some cases making up over 30% of GDP.

Remittance transaction costs, however, remain high (8–10% in some areas), reducing net benefit to households.

Meanwhile, other countries with low remittances rely more on external debt, as seen in rising debt service ratios and low tax revenue mobilization.

Infrastructure and Private Sector. Electricity access has improved in many countries, especially post-2010. But disparities remain stark — atoll nations and remote islands are still underserved.

Private sector contribution to GDP (PSD2GDP) remains low in most countries, reflecting public-sector dominance and limited economic diversification.

Education and Human Capital Higher education access is highly centralized — often limited to countries like Fiji, where regional tertiary institutions exist.

High NEET rates align with low higher education index scores, confirming weak education-to-labor transitions.

Education stagnation is a key bottleneck for productivity and innovation in the Pacific.

Green Growth and Governance Few countries have made tangible progress in growing the blue/green economy — Fiji being the strongest performer, partly due to stronger government effectiveness.

Interestingly, GDP per capita does not correlate with green investment, indicating that wealth alone isn't driving sustainability — governance and planning matter more.

Regional Inequalities & Data Gaps Data availability remains inconsistent. Many countries are missing data for key indicators, especially in newer or complex areas like green economy share or multidimensional poverty.

Disparities in development outcomes are not just across countries, but within them — between urban vs. rural, main islands vs. outer islands, and men vs. women (in indicators not explored here but worth noting).

Methodological Strengths: Why I Used Both Individual and Comparative Graphs We chose to:

Visualize each indicator individually — to preserve clarity, emphasize the unique trend within each domain, and highlight country-specific dynamics.

Then, group related indicators into thematic clusters — using heatmaps, dot plots, grouped bar charts, etc., to uncover cross-indicator insights, correlations, and development patterns.

This two-tiered visualization approach helped make the story more digestible — first isolate, then integrate — providing both micro-level clarity and macro-level understanding.

What Needs to Be Done to Realize Vision 2050. Based on our visual and analytical exploration, here's what the Pacific must prioritize:

1. Invest in Youth and Education. Expand vocational training and regional tertiary education access.

Tackle the NEET crisis with targeted employment pathways.

2. Scale Financial and Digital Inclusion. Support unbanked populations in rural and outer island areas.

Lower remittance costs through digital solutions and policy harmonization.

3. Strengthen Private Sector and Infrastructure. Invest in electricity and internet access to enable entrepreneurship.

Reform public finance and regulatory systems to encourage SME growth.

4. Build Internal Revenue Capacity. Improve tax collection systems and public financial management.

Reduce reliance on external borrowing and volatile remittance flows.

5. Mainstream Sustainability. Support countries like Fiji in scaling successful green economy models.

Encourage regional planning to support collective climate goals.

6. Improve Data Collection & Governance. Close data gaps across indicators and years for better decision-making.

Support institutional development to raise governance effectiveness

Final Thought: Toward a Data-Driven Pacific Future. This report reveals a Pacific region full of promise but marked by disparity — progress in some areas coexists with stagnation in others. The path to Blue Pacific 2050 will not be linear, but with evidence-based strategies, targeted investments, and regional cooperation, it is absolutely within reach.

I hope that these visuals and insights empower leaders, citizens, and development partners to take informed action rooted in the realities — and aspirations — of Pacific people.

Blue Pacific 2050 is not just a vision — it's a roadmap. And data is the compass. .....

This Report is Compiled By: MASE MARK

Data Source: Blue Pacific 2050: Resources And Economic Development (Thematic Area 4) Website: Pacific Data Hub – BP50 Indicators

Tools used:

1. Python
2. Pandas
3. Matplotlib
4. Seaborn
5. Jupyter Notebook