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DEBT, CLIMATE, AND DEVELOPMENT IN ASIA AND THE PACIFIC: BREAKING THE VICIOUS CIRCLE

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Abstract

Developing countries in the Asia and Pacific region are at the forefront of climate change, and addressing urgent climate challenges requires substantial financial commitment. At the same time, the region is struggling under mounting debt burdens. The external sovereign debt of developing Asia and Pacific nations excluding the People's Republic of China (PRC), has more than doubled since 2008. Rising debt burdens are becoming increasingly costly, with average debt servicing expenses over the past three years exceeding their pre-2020 levels by more than 40% as a share of government revenue. This study analyzes the region's worsening debt dynamics and the additional strain posed by climate challenges, highlighting how unsustainable debt burdens threaten sovereign fiscal stability and undermine the ability of the developing Asia and Pacific region to meet its climate goals. It provides an overview of debt and development challenges in the region and discusses the risk it faces of an accelerating vicious circle of debt, climate change, and underdevelopment. And finally, it makes the case for concerted efforts to proactively tackle sovereign debt problems, which in some cases will require significant debt relief as a pathway to sustainable growth.

Keywords: sovereign debt, climate change, debt sustainability

JEL Classification: H63, Q54, F34

Contents

1. INTRODUCTION

As the world's economic powerhouse and largest emitter of greenhouse gases, the Asia and Pacific region plays a decisive role in shaping a sustainable global future (IMF 2024).[1] A failure to transition away from carbon-intensive growth would have devastating consequences, not least for the region itself, as under a high-emissions scenario, climate change could reduce regional GDP by 17% by 2070, disproportionately affecting lower-income and fragile economies (ADB 2024). Additionally, global sea levels are projected to rise by 1 meter by 2050 and between 2 and 3 meters by 2100, posing significant risks to the 112 million people in the Asia and Pacific region who live near coastlines and rivers (CWR 2024; Giardino and Vousdoukas 2024). A warming climate is also expected to intensify disasters across the region, with annual losses from environmental catastrophes projected to exceed US$160 billion by 2030 (UN 2018).

Addressing these urgent climate challenges requires substantial financial commitment. The Asian Development Bank (ADB) estimates that between US$102 billion and US$431 billion will be needed for climate adaptation alone in the region between 2023 and 2030—a 12-fold increase from the US$34 billion committed to climate finance that was recorded in 2022 (ADB 2024). Prior to the COVID-19 pandemic, the Sustainable Development Goal (SDG) financing gap for the Asia and Pacific region was estimated to be US$1.5 trillion annually, equivalent to 5% of the combined GDP of the region (ESCAP 2019).[2] This estimate is likely to have materially increased since then.

At the same time, the region is struggling under mounting debt burdens. As will be shown in this study, the external sovereign debt of developing Asia and Pacific nations, excluding the PRC, more than doubled between 2008 and 2023. Central Asian economies have seen a fivefold increase in external indebtedness, while those in the Pacific Islands have experienced a sevenfold rise. Rising debt burdens are becoming increasingly costly, with average debt servicing expenses over the past three years exceeding their pre-2020 levels by more than 40% as a share of government revenue.

A growing number of developing Asia and Pacific economies are now at risk of, or are already experiencing, debt distress. Of the 21 low-income countries in the region eligible for the Poverty Reduction and Growth Trust (PRGT) of the International Monetary Fund (IMF), the Lao People's Democratic Republic (Lao PDR) is already in debt distress, while nine other countries are classified by the IMF as being at high risk of it. To many observers, however, this is a rather optimistic assessment. Among the region's middle-income countries, Sri Lanka defaulted on its external debt in 2022, and fiscal strains have resulted in 17 separate sovereign debt restructurings involving ten different regional economies in the last four years—a record high.[3]

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1 In this study, we focus on 35 developing Asia and Pacific economies broken down into four subregions: South Asia (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka); Southeast Asia (Cambodia, Indonesia, the Lao PDR, Malaysia, Myanmar, the Philippines, Thailand, Timor-Leste, and Viet Nam); Pacific Islands (Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu); and Central Asia (Kazakhstan, the Kyrgyz Republic, Mongolia, Tajikistan, Turkmenistan, and Uzbekistan).

2 Globally, such a financing gap for a group of 48 developing economies amounts to US$2.3 trillion per annum (ESCAP 2024).

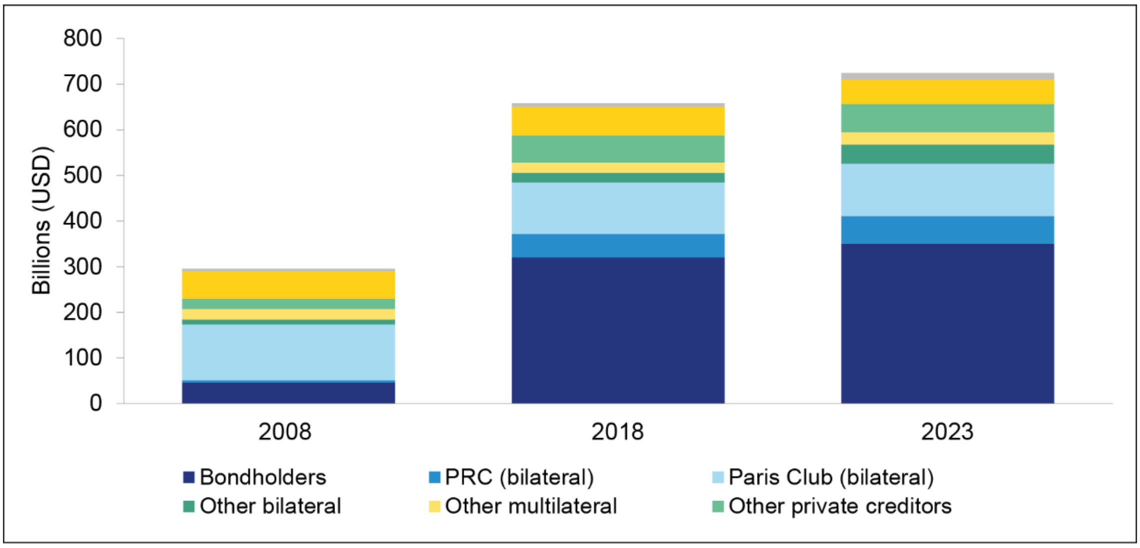
3 This includes 13 cases in 2020 and 2021 where countries applied for suspension of debt payments to bilateral and official creditors under the G20's Debt Service Suspension Initiative (DSSI).

This study analyzes the region's worsening debt dynamics and the additional strain posed by climate challenges, highlighting how unsustainable debt burdens threaten sovereign fiscal stability and undermine the ability of developing Asia and the Pacific to meet its climate commitments. Section 2 provides an overview of debt and development challenges in the region, while Section 3 discusses the risk facing the region of an accelerating vicious circle of debt, climate change, and underdevelopment. Section 4 subsequently makes the case for concerted efforts to proactively tackle sovereign debt problems, which in some cases will require significant debt relief as a pathway to sustainable growth. Finally, Section 5 concludes the study.

2. DEBT AND DEVELOPMENT CHALLENGES IN THE ASIA AND PACIFIC REGION

The Asia and Pacific region faces a mounting debt challenge that increasingly intersects with the realities of climate change. Over the past 15 years, the external debt levels of developing Asia and Pacific countries have surged, leaving many economies more vulnerable to fiscal instability. At the same time, the region is one of the areas most exposed to climate-related disasters, from rising sea levels to intensifying storms, further posing significant risks to government budgets and requiring substantial new spending to climate-proof public finances (Volz et al. 2020a). As can be seen in Figure 1 and Table 1, debt balances in developing Asia and the Pacific (excluding the PRC) surged by 145% between 2008 and 2023, with regions such as Central Asia and the Pacific islands seeing fivefold and sevenfold increases in external debt, respectively.

Figure 1: Public External Debt of Developing Asia and Pacific Countries, Excluding the PRC, by Creditor Type (in US$ Billions)**, 2008–2023**



Note: Includes data from 28 developing Asia and Pacific nations. "Other bilateral" includes all countries with the exception of Paris Club members and the PRC.

Source: Compiled by the authors using the World Bank's International Debt Statistics 2024 (World Bank 2024).

Table 1: Developing Asia and the Pacific (Excluding the PRC) Publicly Guaranteed External Debt Stock by Creditor Class, Share of Total, 2008–2023

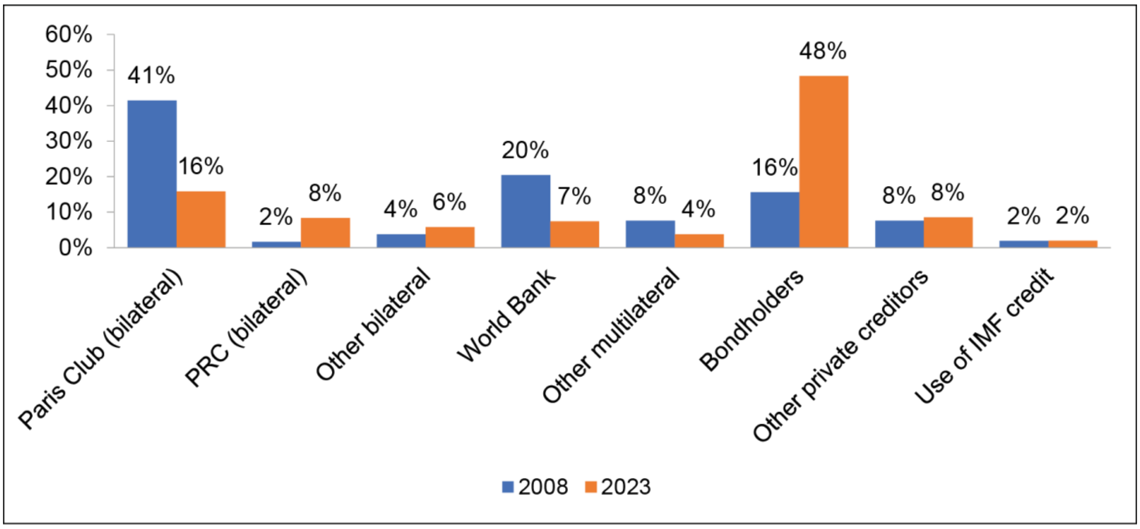
	Share of Total (%)		US$ billions	
Creditor	**2008**	**2023**	**2008**	**2023**
Paris Club (bilateral)	41.5%	15.8%	122.5	114.6
PRC (bilateral)	1.6%	8.4%	4.7	60.5
Other bilateral	3.8%	5.8%	11.1	41.8
World Bank	20.4%	7.4%	60.4	53.8
Other multilateral	7.6%	3.8%	22.5	27.4
Bondholders	15.6%	48.4%	46.0	350.3
Other private creditors	7.6%	8.5%	22.5	61.4
Use of IMF credit	1.9%	2.0%	5.7	14.2
Total	100%	100%	295.4	724.1

Note: Includes data from 28 developing Asia and Pacific nations. The World Bank Group comprises the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA).

Source: Compiled by the authors using data from the World Bank (2024).

Debt owed to private bondholders rose significantly from US$46 billion in 2008 to US$350 billion in 2023 (Figures 2 and 3), with particularly large increases in Central and Southeast Asia as a growing number of economies had managed to establish access to international capital markets. However, such a heavy reliance on international capital market access can prove detrimental to fiscal stability as the risk of rollover, currency fluctuations, and sharp changes in international borrowing costs can cause significant challenges, particularly for climate-vulnerable nations (Dryden and Volz 2025a, 2025b). Figure 4 shows that developing Asia and Pacific countries (excluding the PRC) have seen a substantial decrease in net capital inflows since 2017. In 2022, the region even experienced net capital outflows by all creditor groups except for “other bilateral creditors.”

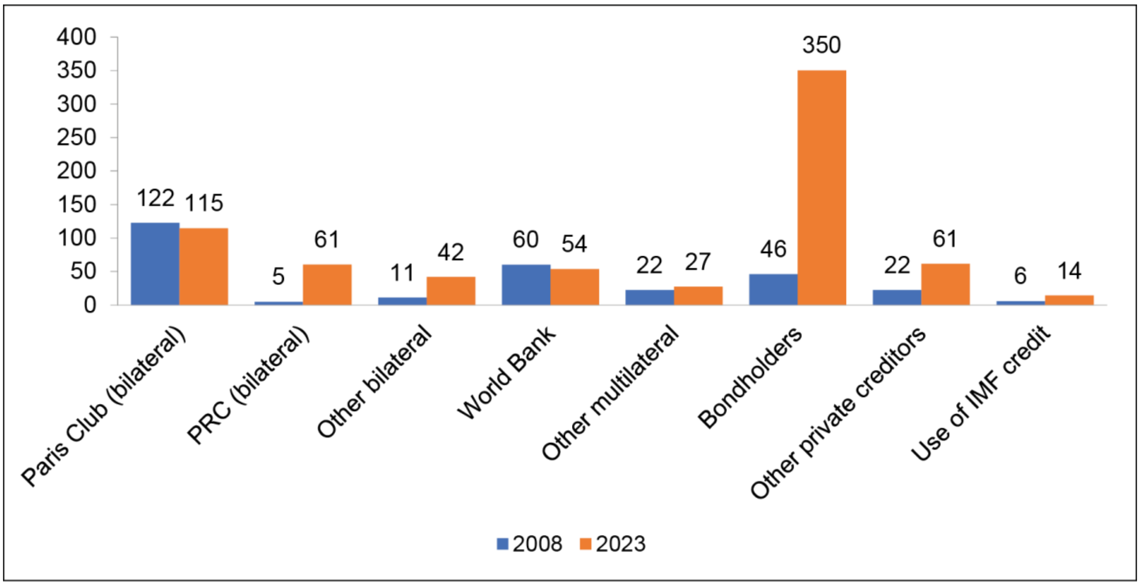
Figure 2: Developing Asia and Pacific (Excluding the PRC) Publicly Guaranteed External Debt Stock by Creditor Class, Percentage Share of Total, 2008–2023



Note: Includes data from 28 developing Asia and Pacific nations. The World Bank Group comprises the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA).

Source: Compiled by the authors using data from the World Bank (2024).

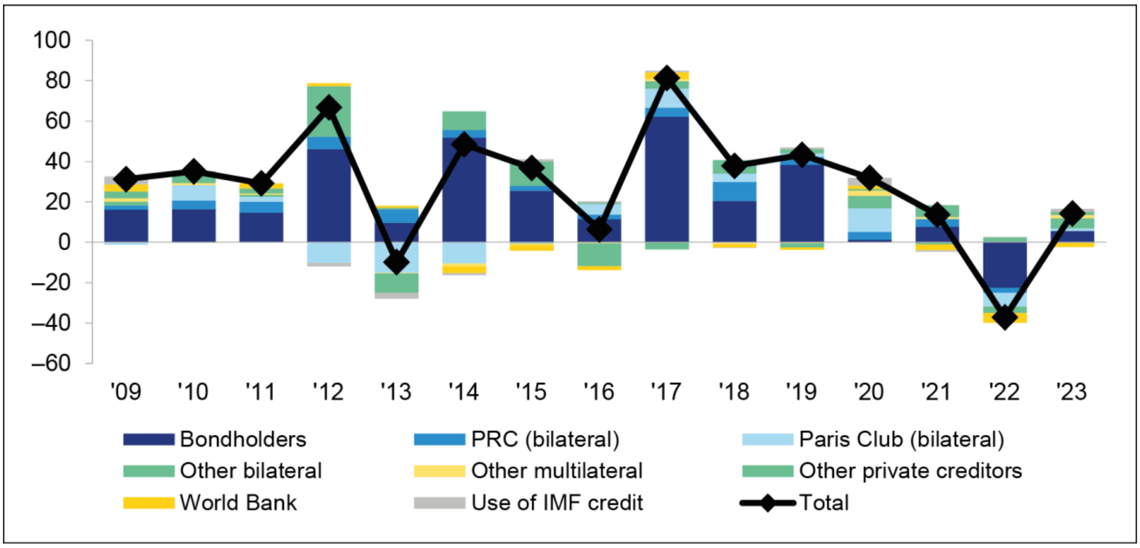
Figure 3: Developing Asia and the Pacific (Excluding the PRC) Publicly Guaranteed External Debt Stock by Creditor Class, Share of Total, 2008–2023, in US$ Billions



Note: Includes data from 28 developing Asia and Pacific countries. The World Bank Group comprises the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA).

Source: Compiled by the authors using data from the World Bank (2024).

Figure 4: Developing Asia and the Pacific (Excluding the PRC), Net Transfers by Creditor, Public and Publicly Guaranteed External Debt (US$ billions)



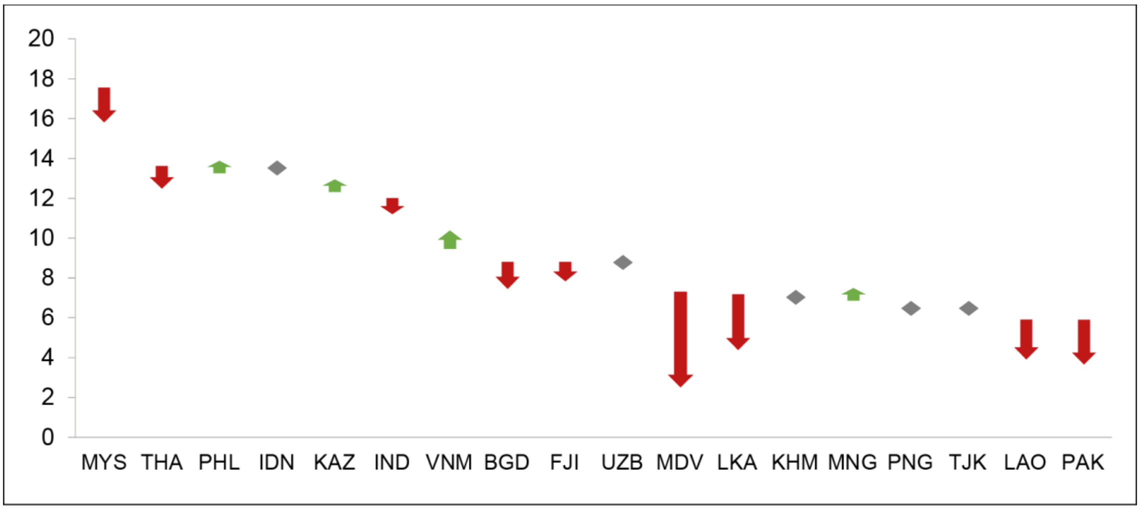
Note: Includes data from 28 developing Asia and Pacific nations. “Other bilateral” includes all countries with the exception of Paris Club members and the PRC.

Source: Compiled by the authors using the World Bank’s International Debt Statistics 2024 (World Bank 2024).

This rise in external indebtedness has placed downward pressure on sovereign credit ratings across the Asia and Pacific region. Figure 5 presents the average credit ratings from Fitch, S&P, and Moody’s for developing economies (excluding the PRC) in the region. Since 2019, countries such as the Maldives, Sri Lanka, the Lao PDR, and

Pakistan have experienced significant credit rating downgrades. In contrast, upward movements have been limited, with Viet Nam standing out as the only country to record an improvement of more than one notch over the same period.

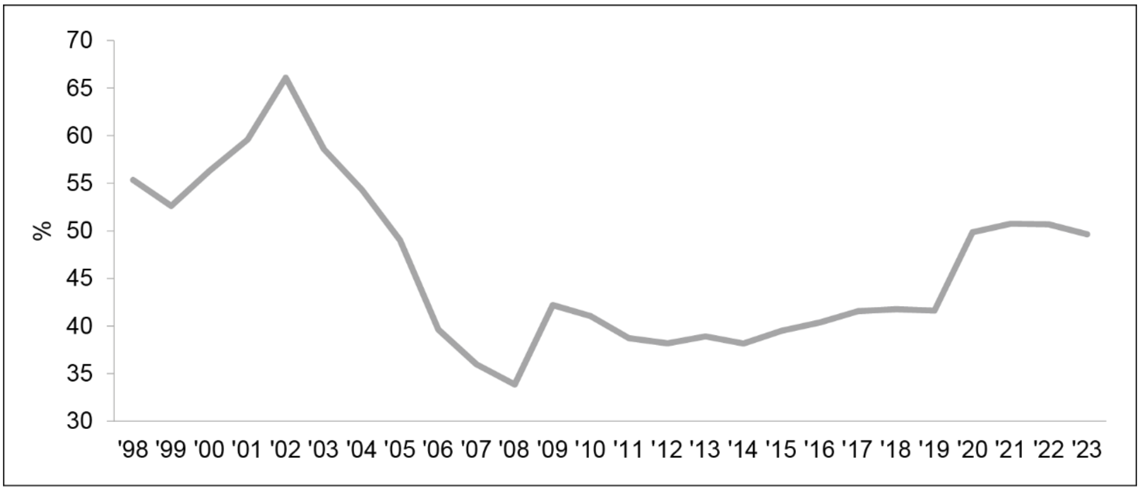
Figure 5: Sovereign Credit Ratings Downgrades (December 2019 vs December 2024)



Note: Average of the three major ratings agencies with ratings converted to figure from 21 (highest rating) to 0 (worst rating/default).

Source: Authors' calculations with ratings data from S&P, Moody's, and Fitch.

Figure 6: Gross Debt-to-GDP Ratio for Developing Asia and the Pacific (Excluding the PRC)

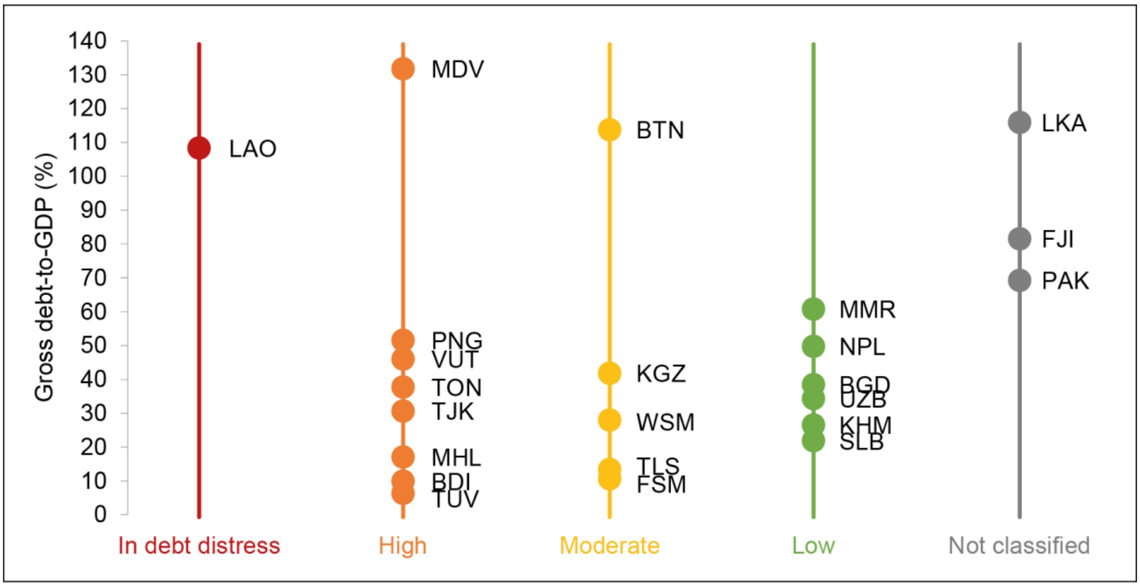


Source: Compiled by the authors with data from the IMF World Economic Outlook, October 2024.

When considering both external and domestic debt burdens, Asia and the Pacific economies have also seen a material increase in their gross debt-to-GDP ratios. Figure 6 shows that the average gross debt-to-GDP ratio of developing Asia and Pacific economies (excluding the PRC) rose from 33% in 2008 to nearly 50% as of 2023, its highest levels since the aftermath of the Asian financial crisis in the late 1990s. A number of developing Asia and Pacific economies now have very high debt-to-GDP ratios, including Maldives (123%), Bhutan (116%), the Lao PDR (116%), and Sri Lanka (116%) (cf. Appendix Table A1). Other countries such as Bangladesh, Myanmar, and Nepal have seen their debt burdens grow moderately but consistently over the past 15 years.

Figure 7 shows that nine of the 21 Asia and Pacific countries that are eligible for the PRGT are classified by the IMF as either being at high risk of external debt distress or already in it. It should be noted, however, that the IMF's debt sustainability analysis (DSA) has been widely criticized for systematically underestimating the risk of debt distress that countries face (e.g., IEO 2014; Guzman and Heymann 2015; Volz et al. 2020b; Rehbein 2022; Zucker-Marques, Gallagher, and Volz 2024, 2025; Expert Review on Debt, Nature, and Climate 2025). Many independent observers would likely challenge the IMF's classification of countries such as Bangladesh, Myanmar, and Nepal as facing a low risk of debt distress, suggesting that the DSA may not fully capture underlying vulnerabilities. Moreover, sovereign debt problems have also affected middle-income countries in the region for which the IMF does not publish such assessments, including Fiji, Pakistan, and Sri Lanka (which defaulted on its debt in 2022).

Figure 7: Comparing Debt Distress to Gross Debt-to-GDP Ratios for IDA-Eligible Countries

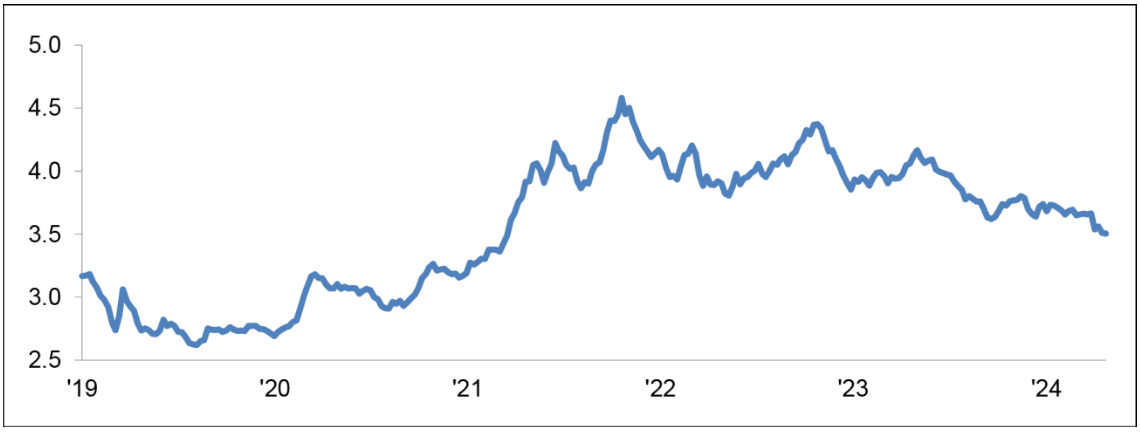


Note: Gross debt-to-GDP ratio data are from 2024 for all countries except Sri Lanka (2022). Afghanistan is excluded due to missing data. Labels indicate the ISO country codes corresponding to each country.

Source: Authors' illustration based on data from IMF World Economic Outlook, October 2024 and IMF DSA reports as of 31 March 2025.

Importantly, debt problems are not necessarily linked to high levels of debt—the terms under which debt is accrued and can be rolled over in the future have a profound impact on a country's debt sustainability. In recent years, the cost of servicing debt has increased sharply for developing countries, including those in the Asia and Pacific region, as central banks in advanced economies have tightened monetary policy in response to higher inflation, raising the cost of borrowing in foreign-denominated currencies. Figure 8 shows that the average yield for Asian governments borrowing in US dollars since 2019 has risen by 50 basis points in total, after reaching over 4.5% in 2022.

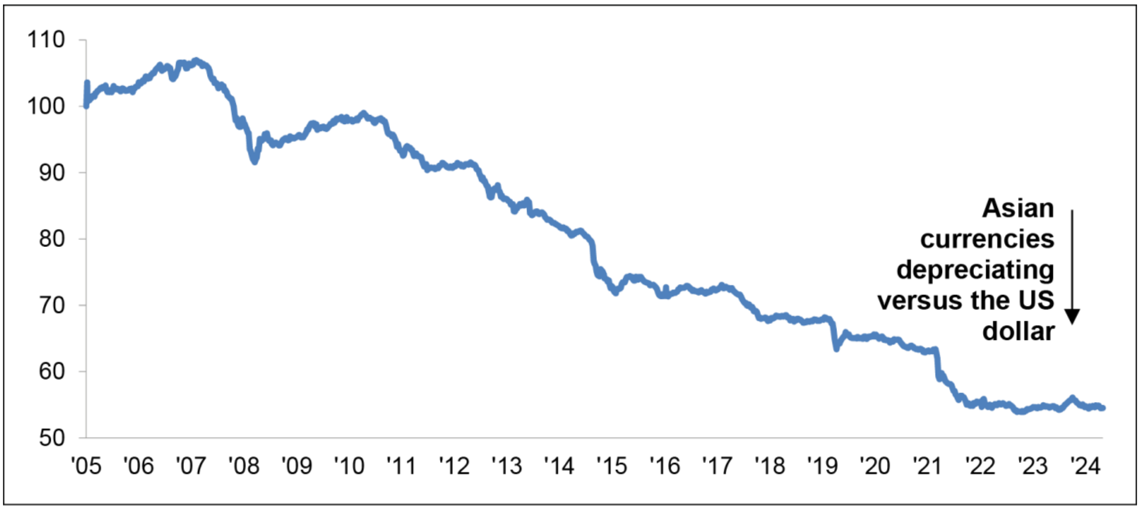
Figure 8: Average Yield of Asian US$ Government Bond Index*



Source: Compiled by the authors with data from iboxx and Eikon. *Index is the Markit iBoxx Asia USD Unhedged index.

Alongside rising borrowing costs, the Asia and Pacific region has also faced sustained declines in the value of its currencies against the US dollar. Figure 9 presents the performance of an equal-weighted index of developing Asia and Pacific currencies relative to the dollar. Since 2005, regional currencies have depreciated by an average of 45%, with Pakistan, Sri Lanka, Kazakhstan, the Kyrgyz Republic, and Mongolia each experiencing losses exceeding 50%. Persistent currency depreciation increases the cost of servicing external debt, particularly when large principal repayments are due.

Figure 9: Equal-Weighted Currency Index of Developing Asian Currencies

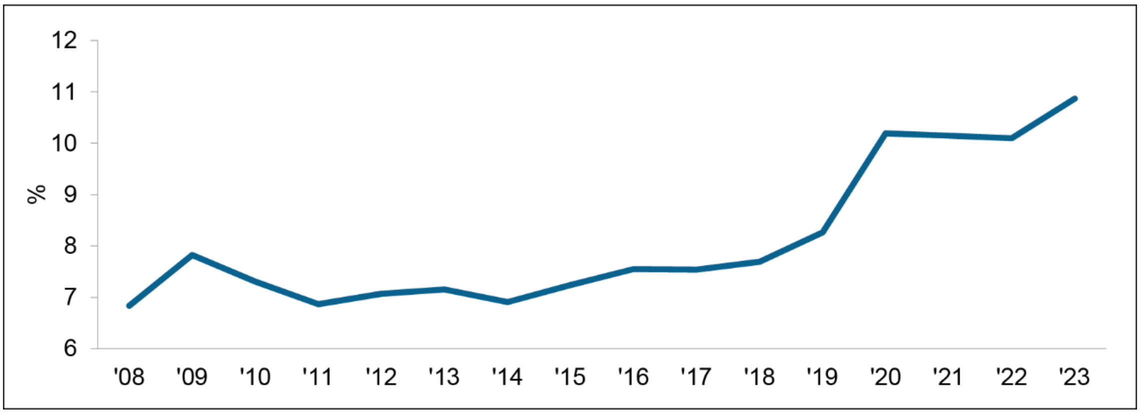


Source: Authors' calculations based on weekly exchange rate changes vs US$ for the following Asia and Pacific currencies: Indian rupee (INR), Pakistani rupee (PKR), Sri Lankan rupee (LKR), Indonesian rupiah (IDR), Philippine peso (PHP), Thai baht (THB), Malaysian ringgit (MYR), Kazakhstani tenge (KZT), Mongolian tögrög (MNT), Fijian dollar (FJD), Kyrgyzstani som (KGS), and Papua New Guinean kina (PGK). These currencies were selected based on their relatively flexible or market-influenced exchange rate regimes, excluding economies with fixed or heavily managed pegs to the US dollar or other anchor currencies.

At the same time, Asia and Pacific central banks have raised domestic interest rates to counter inflationary pressures and support currency valuations. Figure 10 illustrates the annual interest expenses on both domestic and external government debt of developing Asia and Pacific economies (excluding the PRC) as a percentage of government revenue. Between 2008 and 2019, annual interest expenses averaged just

7.35% of overall government budgets. However, from 2020 to 2023, debt servicing absorbed an average of 10.33% of government budgets in the developing countries in the Asia and Pacific region. Bangladesh, Fiji, India, Indonesia, the Lao PDR, Malaysia, Maldives, Papua New Guinea, the Philippines, and Sri Lanka all face debt service ratios of 10% or higher as of 2023 (Appendix Table A2). Increasingly expensive debt burdens are crowding out other vital government expenditures due to rising debt service costs; indeed, approximately 83% of the population of developing Asia- and the Pacific, excluding the PRC—2.2 billion people—live in countries where governments spend more on debt servicing than on healthcare. As can be seen in Figure 11, India, Bangladesh, Sri Lanka, and Pakistan are particularly notable examples of this (UNCTAD 2024).

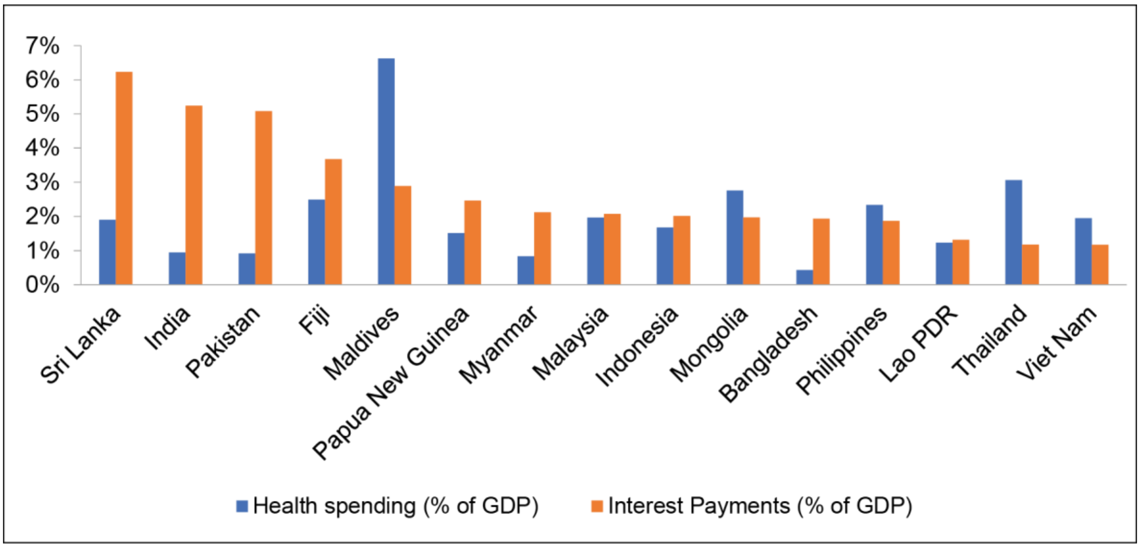
Figure 10: Annual Interest Expense as a Percentage of Government Revenue in Developing Asia and the Pacific (Excluding the PRC)



Note: Data include annual interest expense on both domestic and external government debt. The following countries are excluded due to a lack of data: Afghanistan, Nauru, Pakistan, Tajikistan, Turkmenistan, Tuvalu, and Viet Nam.

Source: Compiled by the authors with World Bank data supplemented by the authors' calculations from individual government budgets.

Figure 11: Health Expenditure and Interest Repayments in the Developing Asia and Pacific Region as a Percentage of GDP (2020–2022)

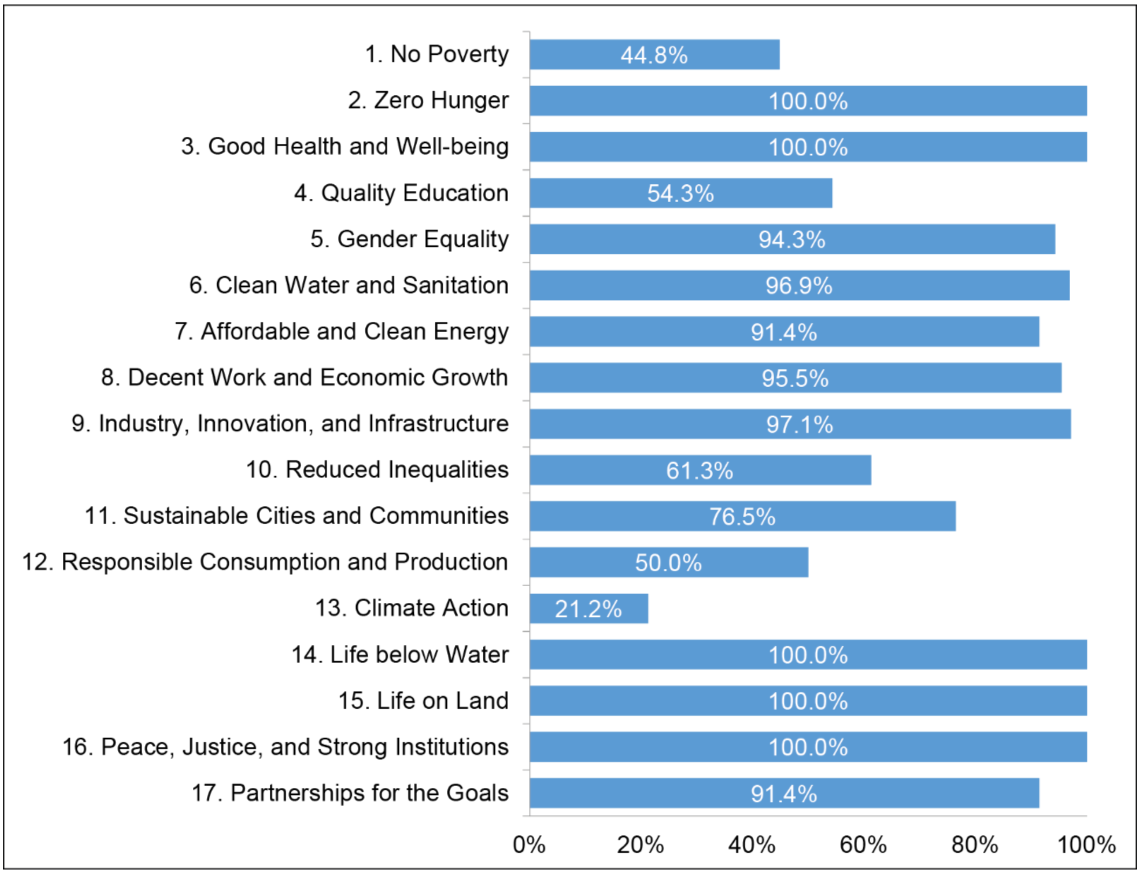


Note: The chart focuses on those countries with a debt service expenditure above 1% of GDP.

Source: Compiled by the authors with data from UNCTAD (2024).

The high levels of indebtedness and debt service leave little fiscal space for many developing economies in the Asia and Pacific region to address climate change challenges (Table A3) or invest in programs to achieve their Sustainable Development Goals (SDGs). As can be seen in Figure 12, in 15 of the 17 SDGs over half of the Asia and Pacific developing economies (excluding the PRC) are facing either major or significant challenges in achieving these goals. Not only are many economies not meeting their SDG commitments but they are also struggling to make any progress towards achieving them. On average, 58% of country-goal observations show either stagnation or regression (Figure 13), highlighting the significant challenges in advancing the SDG agenda. Indeed, the region is only on track to reach 8% of the SDGs.

Figure 12: Percentage of Developing Asia and Pacific Economies with Major or Significant Challenges Remaining in Achieving SDGs

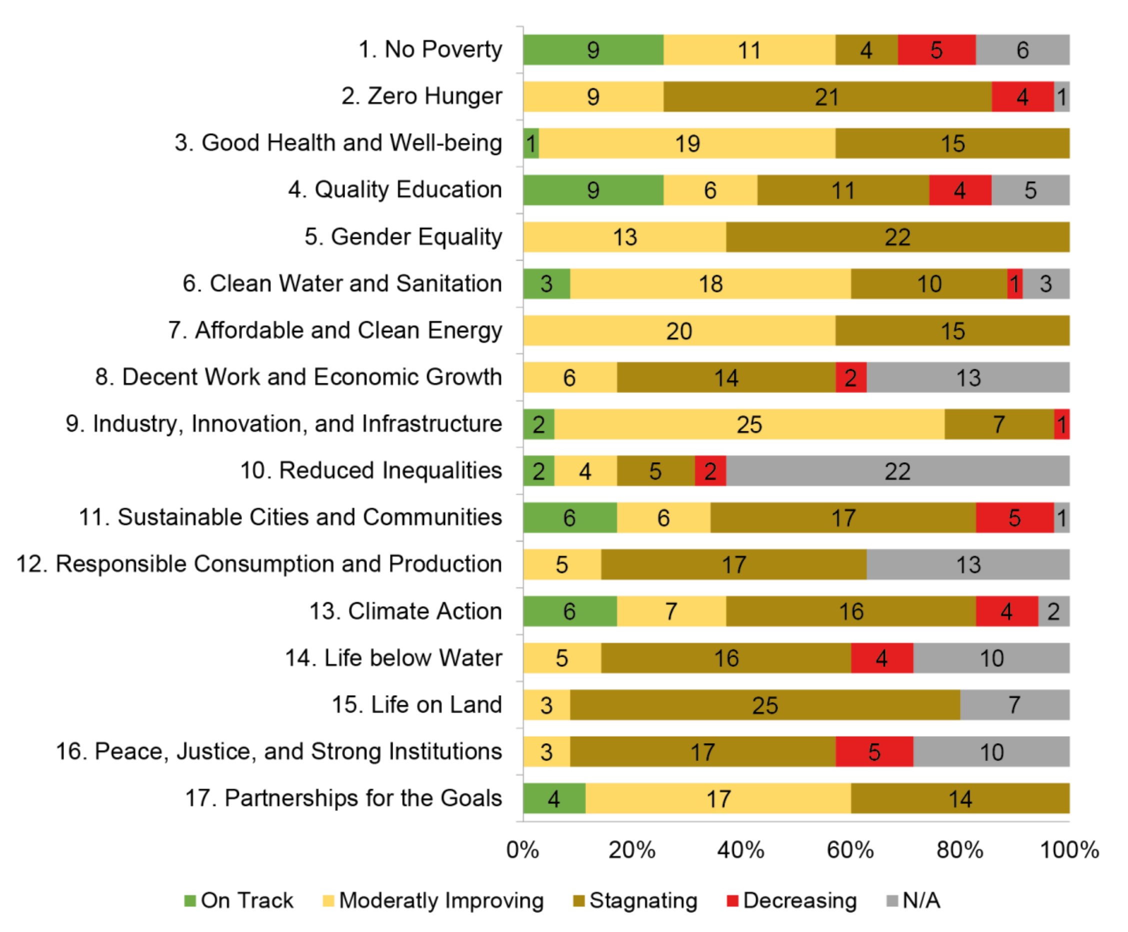


Note: Percentage of countries for which data are available.

Source: Compiled by the authors with data from Sachs et al. (2021) and SDG Index & Dashboards, March 2025 (https://dashboards.sdgindex.org/profiles).

While debt burdens have risen across the Asia and Pacific region, a subset of countries now face a particularly precarious combination of high debt levels and growing repayment costs. Notable among these are Maldives, Bhutan, the Lao PDR, and Sri Lanka, each of which now carries debt stocks exceeding 115% of GDP. The Lao PDR and Sri Lanka are already in debt distress and have sought to restructure their debts in recent years.

Figure 13: Progress of the Asia and Pacific Region Toward Achieving SDGs
(Percentage)



Note: The white numbers denote the number of countries per category.

Source: Compiled by the authors with data from Sachs et al. (2021) and SDG Index & Dashboards, March 2025 (https://dashboards.sdgindex.org/profiles).

Beyond these headline cases, a number of less scrutinized economies are quietly becoming more vulnerable**.** Countries such as Fiji**,** Pakistan, and Papua New Guinea have seen debt-to-GDP ratios rise sharply in recent years, accompanied by rising debt service burdens. Fiji's debt-to-GDP ratio rose from 47.9% in 2008 to 83.3% in 2023, while Pakistan's reached 77.3%—all amid tightening fiscal space and growing climate exposure. Even those currently classified by the IMF as "low risk," such as Bangladesh**,** Myanmar**,** and Nepal, show consistent upward trends in debt levels and are flagged by independent observers as being underassessed. For instance, Nepal's debt-to-GDP ratio has increased by more than 10 percentage points over the past 15 years, while Bangladesh and Myanmar face double-digit debt service-to-revenue ratios—trends that suggest that the IMF's formal risk assessments may understate the mounting pressures many of these economies face, especially when climate vulnerability, limited insurance coverage, and stagnating SDG progress are taken into account.

3. DEBT AND CLIMATE CHANGE IN THE ASIA AND PACIFIC REGION: THE RISK OF AN ACCELERATING VICIOUS CIRCLE OF DEBT, CLIMATE CHANGE, AND UNDERDEVELOPMENT

High levels of indebtedness and debt service payments leave little fiscal space for many developing economies in the Asia and Pacific region to address climate change challenges or invest in enhancing economic resilience. The region is particularly vulnerable to natural disasters, having experienced more than twice as many such events as Sub-Saharan Africa and more than four times as many as Central America and the Caribbean between 1990 and 2024. In 2023 alone, natural disasters cost US$65 billion in economic losses, a figure projected to exceed US$160 billion annually by 2030 due to an expected 40% increase in regional disasters driven by climate change (United Nations 2018; UNDRR 2022; Aon 2024). Ensuring that climate-vulnerable Asia and Pacific economies have fiscal space to build resilience and quickly respond to disasters is even more crucial given that only 9% of losses from natural disasters are covered by insurance (Aon 2024).

Rising sea levels pose a significant threat to the region. Currently, nearly 900 million people worldwide live in coastal areas less than 10 meters above sea level, a figure projected to exceed one billion by 2050 (IPCC 2024; Haasnoot et al. 2021). According to the UNDP (2023), approximately 70% of the global population at risk from rising sea levels resides in the Asia and Pacific region, with highly populated megacities such as Bangkok, Jakarta, and Manila being particularly vulnerable to flooding. Beyond the severe humanitarian consequences, the economic risks are substantial—it is estimated that over US$5 trillion in loans, representing 64% of the total amount of lending by the Asia and Pacific banks, are at risk from rising sea levels (AIGCC 2023).

To mitigate the impact of rising sea levels, investments in coastal protection will require an estimated US$27 billion annually, while flood defenses for inland rivers will need an additional US$17 billion per year between 2023 and 2030 (ADB 2024). Pacific Island nations will bear the brunt of these challenges, as a 0.5-meter rise in sea levels would cost Kiribati, Tuvalu, and the Marshall Islands US$10 billion—equivalent to about 20 years of their combined GDP (World Bank 2024).

The most climate-vulnerable nations in the Asia and Pacific region also face a heightened risk of debt distress. As can be seen in Table 2 and Figure 14, which display the IMF's assessment of the risk of external distress of the 21 Asia and Pacific countries eligible for the PRGT and their climate vulnerability score according to the Notre Dame Global Adaptation Initiative (ND-GAIN), nine of the ten nations deemed by the IMF to be at high risk of debt distress or already in debt distress—including five Pacific island states (Kiribati, the Marshall Islands, Papua New Guinea, Tonga, and Vanuatu)—have climate vulnerability scores above 0.45, i.e., they are among the most susceptible to the adverse effects of climate change.

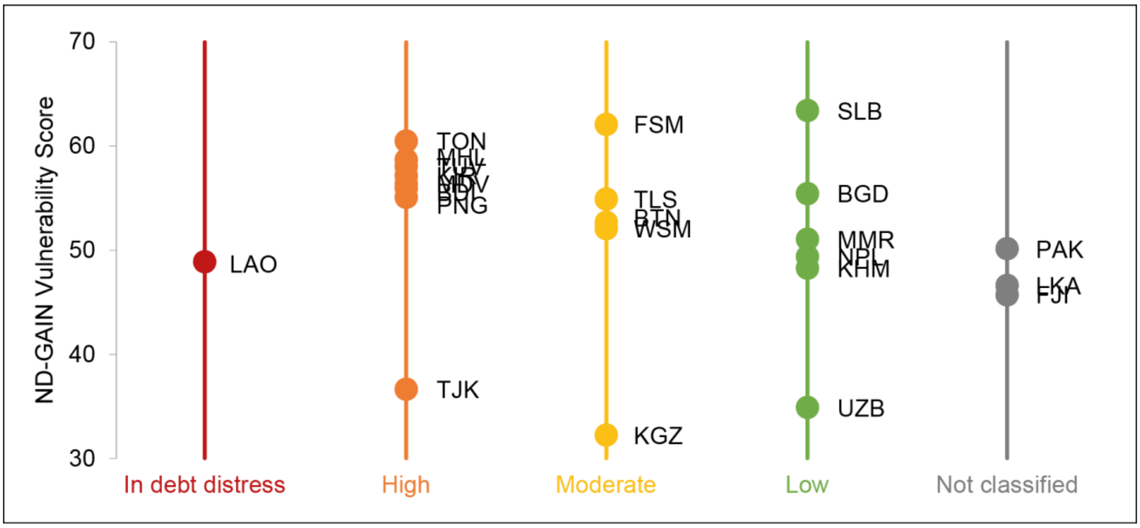
Table 1: Climate Vulnerability and External Debt Distress Among the Asia and Pacific Economies Eligible for the PRGT

	Risk of External Debt Distress	Climate Vulnerability
Afghanistan	High	High
Bangladesh	Low	High
Bhutan	Moderate	High
Cambodia	Low	High
Kiribati	High	High
Kyrgyz Republic	Moderate	Low
Lao PDR	In debt distress	Moderate
Maldives	High	High
Marshall Islands	High	High
Federated States of Micronesia	Moderate	High
Myanmar	Low	High
Nepal	Low	High
Papua New Guinea	High	High
Samoa	Moderate	High
Solomon Islands	Low	High
Tajikistan	High	Moderate
Timor-Leste	Moderate	High
Tonga	High	High
Tuvalu	High	High
Uzbekistan	Low	Moderate
Vanuatu	High	High

Note: Climate vulnerability scores are ND-GAIN climate vulnerability figures and are categorized as follows: "High" indicates scores in excess of 0.45; "Moderate" refers to scores between 0.33 and 0.45; and "Low" scores are those below 0.33.

Source: Authors' calculations using IMF data, updated as of 31 March 2025.

Figure 14: Comparing Debt Distress to ND-GAIN Vulnerability Scores for IDA-Eligible Countries



Note: ND-GAIN vulnerability scores for all countries are as of 2022. Afghanistan is excluded due to missing data. Labels indicate the ISO country codes corresponding to each country.

Source: Authors' illustration based on data from the Notre Dame Global Adaptation Initiative and IMF DSA reports as of February 2025.

Table 2: Developing Asia Debt and Climate Heatmap

Country	Debt/GDP (%)	Interest/Govt Revenue (%)	IMF Risk of Debt Distress	SDG Progress (%)*	Climate Vulnerability	Composite Risk
Afghanistan	–	–	High	67	High	High
Bangladesh	39	17.7	Low	65	High	Moderate
Bhutan	116	6.9	Moderate	33	High	Moderate
Cambodia	26	5.1	Low	73	High	Moderate
Fiji	83	15.2	–	64	Moderate	High
India	83	39.1	–	41	Moderate	High
Indonesia	40	17.5	–	47	Moderate	Moderate
Kazakhstan	23	9	–	50	Moderate	Moderate
Kiribati	12	0.7	High	73	High	Moderate
Kyrgyz Republic	45	2.3	Moderate	44	Low	Low
Lao PDR	116	12.8	In Distress	64	Moderate	High
Malaysia	70	11.9	–	65	Moderate	High
Maldives	123	12.3	High	23	High	High
Marshall Islands	19	0.3	High	44	High	Moderate
Federated States of Micronesia	12	2.7	Moderate	100	High	Moderate
Mongolia	47	4.5	–	50	Moderate	Low
Myanmar	60	9.6	Low	53	High	Moderate
Nauru	20	–	–	56	High	Moderate
Nepal	47	7.6	Low	40	High	Moderate
Pakistan	77	–	–	69	High	High
Palau	81	2.3	–	40	Moderate	Moderate
Papua New Guinea	52	12.6	High	87	High	High
Philippines	57	16.4	–	53	Moderate	Moderate
Samoa	33	1.5	Moderate	42	High	Low
Solomon Islands	21	1.2	Low	77	High	Low
Sri Lanka	116	79.9	In Distress	47	Moderate	High
Tajikistan	31	–	High	38	Moderate	Moderate
Thailand	62	5.7	–	59	Moderate	Moderate
Timor-Leste	11	0.1	Moderate	57	High	Moderate
Tonga	43	1.3	High	38	High	Moderate
Turkmenistan	5	–	–	79	Moderate	High
Tuvalu	8	–	High	36	High	Moderate
Uzbekistan	33	6.1	Low	53	Moderate	Low
Vanuatu	42	2.2	High	86	High	Moderate
Viet Nam	34	–	Low	59	Moderate	Low

Note: The composite risk assessment is based on five indicators: (1) gross public debt-to-GDP ratio; (2) interest payments as a percentage of government revenue; (3) IMF classification of debt distress; (4) the proportion of Sustainable Development Goals (SDGs) showing stagnation or regression; and (5) climate vulnerability as measured by the ND-GAIN index. Each indicator is scored as follows: 1 point for high risk, 0.5 for moderate risk, and 0 for low risk. The thresholds used are: debt-to-GDP ratio: high risk > 70%, moderate 40%–69%, low < 40%; Interest/Government revenue: high risk > 10%, moderate 5%–9.9%, low < 5%; SDG stagnation: high risk > 50%, moderate 30%–50%, low < 30%; climate vulnerability: high for ND-GAIN > 0.45, moderate for 0.33–0.45, low for < 0.33; debt distress: In distress or high risk (1), moderate (0.5), low risk (0). A country's composite risk classification is: high (total score 4–5), moderate (2–3), or low (< 2). *SDG indicator is the proportion of SDGs that are either "stagnating" or "declining."

Source: Authors' calculations using data from IMF World Economic Outlook, October 2024; SDG data from Sachs et al. (2021) and SDG Index & Dashboards, March 2025; Notre Dame Global Adaptation Initiative.

Recognition has grown in recent years that climate change can worsen sovereign risk (Volz et al. 2020a). Amongst other issues, the IMF's DSA has been criticized for insufficiently accounting for climate risks and critical investment needs in climate resilience to protect the economy (Volz et al. 2020b, 2021; Zucker-Marques et al. 2024, 2025; Expert Review on Debt, Nature and Climate 2025). Zucker-Marques, Gallagher, and Volz (2024, 2025) introduced an "enhanced" DSA that integrates climate-related risks and essential SDG spending into the IMF's Debt Sustainability Framework for Low-Income Countries. Using the IMF/World Bank thresholds for the present value of external public and publicly guaranteed debt relative to GDP and exports, the study finds that Bhutan, the Lao PDR, and Maldives had already breached these debt sustainability benchmarks by 2022, even before any new climate investment was factored in. Once climate-related spending needs are incorporated, six additional countries, namely Timor-Leste, Nepal, Tajikistan, Vanuatu, Tonga, and Myanmar, are projected to exceed at least one of these thresholds by 2027. These findings highlight the potential for climate change to accelerate debt vulnerabilities in already fragile economies—underinvestment in resilience will expose countries to growing climate risks, while debt-financed investment in resilience may further erode debt sustainability.

It is beyond the scope of this paper to conduct a detailed analysis of the debt vulnerabilities of individual Asia and Pacific countries and how these may be affected by climate risks. To provide a high-level view of the debt-climate situation across the region and the countries that are facing the greatest strain, we construct a composite assessment across five dimensions: debt-to-GDP ratio, interest payments as a share of government revenue, IMF debt distress classification, climate vulnerability, and SDG progress. Each country is scored based on thresholds of fiscal and environmental stress, with a heatmap, exhibited in Table 3, summarizing the extent of exposure. The results show that countries such as Sri Lanka, the Lao PDR, Maldives, and Papua New Guinea exhibit a high composite risk, combining debt pressures with climate exposure and faltering development progress. Others, such as Bangladesh, Nepal, and Myanmar, though classified as low risk by the IMF (a likely underestimation of risk), emerge as moderate-risk cases when broader structural pressures are included. This approach offers a somewhat more holistic framework for identifying countries most in need of targeted debt relief and concessional climate finance. But it cannot, of course, replace an enhanced DSA taking into account climate vulnerabilities and SDG spending needs (Zucker-Marques, Gallagher, and Volz 2024, 2025) and should not be read as a such.

4. DEBT RESOLUTION AS A CATALYST FOR GREEN AND INCLUSIVE GROWTH IN ASIA AND THE PACIFIC

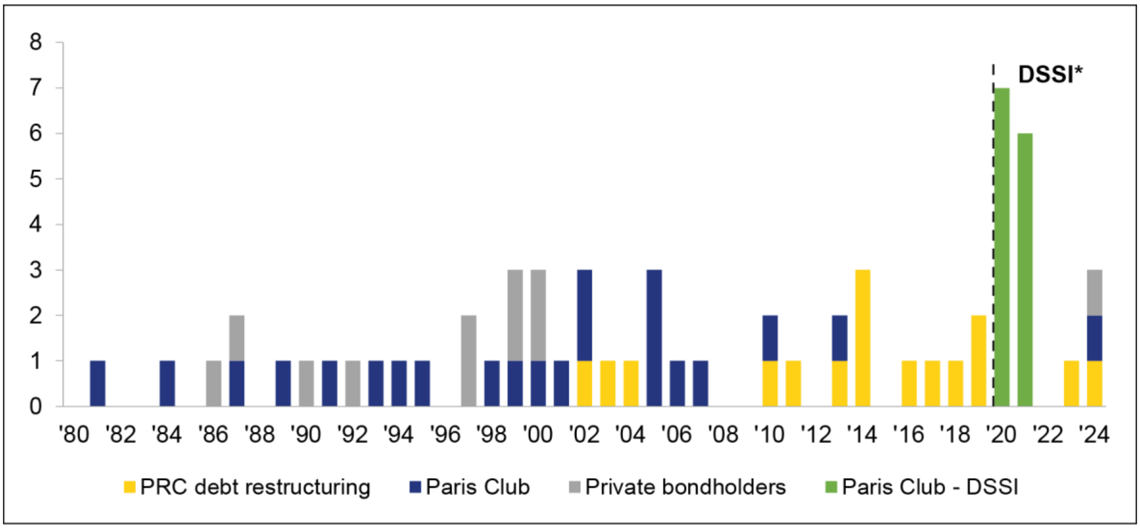
As discussed in Sections 2 and 3, the public debt situation in many developing Asia and Pacific countries is worsening, threatening a vicious circle of debt, climate vulnerability, and underdevelopment, and the existing frameworks for dealing with sovereign debt distress are not working well. The G20 Common Framework, which was intended to support low-income countries facing debt distress, has failed to support these economies. Moreover, many countries in the region are middle-income economies to whom the Common Framework does not apply. The DSAs conducted by the IMF in collaboration with the World Bank fail to appropriately account for critical development and climate investment needs, or indeed external shocks, leading to unrealistic assessments and ineffective debt relief (Volz et al. 2020b, 2021;

Zucker-Marques, Gallagher, and Volz 2024, 2025). The Common Framework also lacks mechanisms to ensure participation from all creditor classes, with private bondholders and commercial creditors often being unwilling to engage, and multilateral development banks (MDBs) being entirely exempt. Additionally, inconsistencies in the level of debt relief provided by different creditors undermine fairness, as private creditors tend to offer the least relief. Strengthening the principle of comparability of treatment could help align debt relief more closely with the interest rates and risk assessments of different creditors (Zucker-Marques, Volz, and Gallagher 2023).

Debt and Development Challenges in the Asia and the Pacific Region

Historically, the Asia and the Pacific region has been relatively insulated from global debt crises, with those of the 1980s and 1990s, which engulfed Latin America and African economies, having only a limited impact on vulnerable nations in Asia. However, in recent years, rising debt burdens have increasingly undermined sovereign debt stability in the region, leading to a surge in debt restructurings. Between 2019 and 2022, 10 Asia and Pacific economies negotiated 17 separate debt restructurings with the PRC, the Paris Club, and private creditors as they sought fiscal flexibility to manage the economic fallout from the COVID-19 pandemic (Figure 15, Appendix Table A4). This includes 13 cases in 2020 and 2021 where countries applied for suspension of debt payments to bilateral and official creditors under the G20's Debt Service Suspension Initiative (DSSI). The strain on regional economies has been significant, and more debt restructurings have taken place in the last three years than in the 12 years following the global financial crisis of 2008.

Figure 15: Number of Debt Restructurings in Asia and the Pacific, 1980–2024



Note: See full list in Appendix Table A4. *DSSI: Debt Service Suspension Initiative.

Sources: Compiled by the authors with data from Horn, Reinhart, and Trebesch (2021), Cruces and Trebesch (2013), and authors' calculations.

Beyond the frequency of restructurings, the rising dominance of Chinese lending has made the process more complex and prolonged. As much as 50% of the PRC's official lending to developing countries is not reported in widely used official debt statistics (Horn, Reinhart, and Trebesch. 2021). Additionally, the PRC has resisted adopting traditional restructuring norms, questioning the claim of the Paris Club that it leads on sovereign debt restructurings and arguing that institutions such as the IMF and World

Bank should not benefit from their "super creditor" status but instead share the burden of debt relief with other creditors (Horn, Reinhart, and Trebesch 2021).

Creditor coordination challenges have been evident in Sri Lanka's recent debt restructuring, which involved over US$27 billion in foreign debt but yielded significantly different terms across creditor groups. Under the deal, which was finalized in September 2024, bilateral creditors, primarily the PRC, are set to bear a much larger burden than private bondholders. According to the net present value approach, in line with the IMF's restructuring methodology, bilateral creditors will recover approximately 67 cents for every dollar lent (Debt Justice 2024). In contrast, international bondholders are expected to recover 80 cents per dollar, with potential gains rising to 98 cents if Sri Lanka's economic growth exceeds IMF projections by 13% or more.[4]

Sri Lanka's debt restructuring process took over two years to complete, yet the risk of another default remains high. External debt payments are projected to exceed 20% of government revenue for at least the next decade, peaking at over 29% in 2028 (IMF 2023). This leaves little fiscal flexibility to respond to external shocks, such as natural disasters, which are common in Sri Lanka. Just two months after the restructuring had been finalized, Cyclone Fengal struck, affecting 440,000 Sri Lankans and causing economic losses exceeding US$55 million (ReliefWeb 2024; EM-DAT 2024). Skepticism among investors about Sri Lanka's ability to meet its financial obligations remains evident. As of April 2025, the country's ten-year sovereign debt trades with a yield of 11.8%, 750 basis points above the equivalent US Treasury yield, which is typically a strong indicator of ongoing debt distress (Dryden and Volz 2025a).

The lengthy and unsatisfactory debt restructuring process in Sri Lanka has once again signalled to other countries struggling with high external debt that the current international frameworks and processes for dealing with sovereign debt problems are biased against debtor countries and are unlikely to lead to fair outcomes that would help defaulting countries to clean their balance sheet and recover quickly. As a consequence, overindebted countries will do all they can to avoid sovereign default debt, even if this means austerity policies that undermine their future development prospects.

The Need for a More Ambitious Framework for Providing Debt Relief and Affording Overindebted Developing Countries the Opportunity to Invest in SDGs and Climate Action and Resume Growth

The Debt Relief for a Green and Inclusive Recovery (DRGR) proposal lays out a comprehensive strategy designed to address sovereign debt challenges while promoting climate resilience and sustainable development (Volz et al. 2020b, 2021). It employs a mix of incentives and enforcement mechanisms to ensure participation from all creditor classes in the restructuring and relief process. By distinguishing between countries experiencing debt distress and those facing liquidity constraints, the proposal offers tailored solutions that empower nations to pursue sustainable green growth and meet their climate and development objectives.

At its core, the DRGR proposal is built on three key components. The foundation, as shown in Figure 16, is a thorough and expedited reform of the DSA framework to

[4] Sri Lanka's private bondholders debt restructuring deal contains a value recovery feature that would result in 86 cents per US$1 being recovered if GDP were 4%higher than estimates; 94 cents if GDP were 8% higher, and 98 cents if GDP were 13% higher. Bondholders do have some downside to participation. If GDP is 2% or 4% lower, their payout falls to 75 and 70 cents, respectively (Debt Justice 2024).

incorporate climate risks and critical investment needs for achieving the SDGs and climate targets. Current DSAs primarily assess a country's ability to service its debt while neglecting the need for investment in climate resilience and just transitions. By integrating climate considerations, the international community can align debt relief with sustainability goals and better distinguish between countries requiring debt relief and those needing liquidity support. Following an enhanced DSA, the DRGR proposal operates through two main pillars, each addressing the distinct needs of countries requiring debt relief and those needing only liquidity support.

Figure 16: Two Pillars for Debt Relief for a Green and Inclusive Recovery

Source: Debt Relief for a Green and Inclusive Recovery Project (2025).

For countries in need of debt restructuring and relief, substantial debt relief must be provided. The active participation of all creditor classes, including private bondholders and MDBs, is essential, and establishing fair comparability of treatment rules to determine haircuts ensures equitable burden sharing. Additionally, incentives and penalties are necessary to secure full participation from private and commercial creditors. Debt relief should also be coupled with fresh concessional financing to support sustainable recoveries. In return, countries receiving relief must commit to utilizing freed fiscal resources for green and inclusive development, aligning with their Nationally Determined Contributions and national SDG implementation plans. They must also ensure full public debt transparency and adhere to enhanced public debt standards.

For nondistressed countries facing liquidity constraints, credit enhancements and additional support should be provided to lower capital costs and improve access to liquidity. Beyond the issuance of new Special Drawing Rights (SDRs) and the rechanneling of SDRs from advanced economies, efforts must be strengthened to expand concessional finance through MDBs. Complementary instruments, such as debt buybacks, debt-for-climate/nature/development swaps, and credit enhancements for new sovereign sustainability-linked bonds, can further support these nations.

Ultimately, debt relief alone is not a substitute for a permanent sovereign debt workout mechanism or the broader reforms required to reshape the global financial architecture. It must be part of a comprehensive package that includes new liquidity provisions, affordable development finance, and systemic reforms of the international financial system.

5. CONCLUSION

The sovereign debt situation has deteriorated in many countries in the Asia and Pacific region, with most debt distressed countries being in South Asia and the Pacific. The prospects look bleak: The global trade turmoil threatens the growth of the world economy, with likely adverse knock-on effects on developing Asia and Pacific countries. Progress towards achieving the SDGs has stalled as countries struggle to make ends meet and underinvest in critical areas of development, including health, education, and climate-resilient infrastructure. The current mechanisms for dealing with sovereign debt problems—the G20 Common Framework for Low-Income Countries and ad hoc debt treatments by the Paris Club, the PRC, and others for middle-income countries—are not fit for purpose. Countries needing debt relief are effectively discouraged from seeking it because they know they would enter a process that would be neither quick nor deliver meaningful debt relief.

The current international frameworks and procedures for handling sovereign debt issues are unlikely to deliver just restructurings that would enable the speedy recovery and balance sheet cleaning of defaulting nations needed to get them back on track towards achieving the SDGs. Overindebted nations will therefore do whatever it takes to prevent sovereign debt default, even if this necessitates austerity measures that jeopardize their chances of future growth. The result is likely to be a “default on development and climate” (Zucker-Marques, Gallagher, and Volz 2024).

What is needed for countries facing debt distress—not just for the Asia and Pacific region but globally—is an ambitious debt relief initiative that is based on DSAs accounting for critical SDG and climate investment needs as well as environmental risks. Countries that are deemed overindebted according to such an analysis should be given the opportunity to restructure their debt in a clearly defined process. Without this, there is a high risk that we are going to see a further regression of progress in SDGs, and effectively a breakdown of Agenda 2030.

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APPENDIX

Table A1: Developing Asia and the Pacific Gross Debt-to-GDP Ratio (in %)

Country	2008	2018	2023
Afghanistan	19.1	7.4	–
Bangladesh	33.9	29.6	39.3
Bhutan	60.6	107.3	116.1
Cambodia	23.0	21.1	25.7
Fiji	47.9	45.8	83.3
India	74.4	70.4	83.0
Indonesia	30.3	30.4	39.6
Kazakhstan	6.8	20.3	22.8
Kiribati	13.9	19.0	11.7
Kyrgyz Republic	49.0	54.8	44.7
Lao PDR	51.7	60.6	115.9
Malaysia	39.4	55.6	69.8
Maldives	39.0	70.6	123.1
Marshall Islands	44.1	24.7	18.7
Federated States of Micronesia	29.5	20.1	12.4
Mongolia	31.0	76.5	46.8
Myanmar	61.5	40.4	59.7
Nauru	–	71.1	20.1
Nepal	36.8	31.1	47.1
Pakistan	49.1	64.8	77.3
Palau	32.0	29.5	80.9
Papua New Guinea	21.6	36.7	52.0
Philippines	50.0	37.1	56.5
Samoa	28.2	49.4	33.4
Solomon Islands	28.9	7.9	20.9
Sri Lanka	68.8	83.6	115.9
Tajikistan	30.2	46.6	30.9
Thailand	34.9	41.9	62.4
Timor-Leste	0.0	9.1	10.9
Tonga	34.0	50.7	43.3
Turkmenistan	4.7	18.7	4.7
Tuvalu	19.8	11.9	7.5
Uzbekistan	8.3	17.5	32.5
Vanuatu	21.2	45.3	41.9
Viet Nam	31.0	43.8	34.4

Source: IMF World Economic Outlook (October 2024).

Table A2: Annual Interest Expense as a Percentage of Government Revenue in Developing Asia and the Pacific

Country	2008	2018	2023
Bangladesh	21.8	18.1	17.7
Bhutan	9.4	4.0	6.9
Cambodia	1.2	1.5	5.1
Fiji	11.8	9.9	15.2
India	26.5	23.0	39.1
Indonesia	9.0	13.3	17.5
Kazakhstan	1.2	5.7	9.0
Kiribati	2.0	0.2	0.7
Kyrgyz Republic	2.2	3.4	2.3
Lao PDR	4.7	10.5	12.8
Malaysia	8.0	13.1	11.9
Maldives	3.8	6.5	12.3
Marshall Islands	1.3	0.5	0.3
Federated States of Micronesia	0.9	0.3	2.7
Mongolia	1.0	10.9	4.5
Myanmar	6.7	10.4	9.6
Nepal	5.3	2.0	7.6
Palau	1.0	0.3	2.3
Papua New Guinea	5.2	13.2	12.6
Philippines	24.1	12.3	16.4
Samoa	1.0	2.3	1.5
Solomon Islands	0.9	0.2	1.2
Sri Lanka	31.0	44.1	79.9
Thailand	4.9	5.0	5.7
Timor-Leste	0.0	0.0	0.1
Tonga	2.6	1.8	1.3
Uzbekistan	0.5	0.3	6.1
Vanuatu	3.5	2.5	2.2

Source: Authors' calculation using individual government accounts.

Table A3: Developing Asia and the Pacific Debt Service and Climate Finance Needs (2024–2030)

Country Name	Average Annual External Debt Service 2024–2030 (in $ millions)	Estimated Average Annual Climate Finance Needs 2024–2030 (in $ millions)	Average Annual External Debt Service as Share of Climate Finance Needs (in %)
Afghanistan	189	1,687	11.2
Nepal	731	3,212	22.8
Vanuatu	25	104	24.0
Pakistan	15,227	54,540	27.9
Tajikistan	579	1,080	53.6
Bangladesh	9,068	16,511	54.9
Viet Nam	13,799	18,114	76.2
Indonesia	43,280	47,022	92.0
Kyrgyz Rep.	1,099	1,086	101.2
Fiji	265	253	104.7
Bhutan	410	373	109.9
Kazakhstan	17,813	15,000	118.8
Myanmar	1,024	573	178.7
Cambodia	1,852	799	231.8
Mongolia	4,885	1,182	413.3
Solomon Islands	51	12	425.0
Lao PDR	2,847	490	581.0
Papua New Guinea	1,844	219	842.0
Turkmenistan	544	48	1,133.3

Note: Figures show the average annual spending on external debt service for existing debt obligations between 2024 and 2030 compared to the estimated annual climate spending needs over the same time period.

Source: Compiled by the authors. External debt service figures are from the World Bank International Debt Statistics. Climate needs are from the Climate Policy Initiative's "Bottom-up Climate Finance Needs" report (Strinati et al. 2024).

Table A4: Asia and the Pacific Debt Restructurings by Year and Creditor Group

Name	Year	Restructuring
Indonesia	1970	Paris Club Restructuring
Cambodia	1972	Paris Club Restructuring
Pakistan	1972	Paris Club Restructuring
Pakistan	1974	Paris Club Restructuring
Pakistan	1981	Paris Club Restructuring
Philippines	1984	Paris Club Restructuring
Philippines	1986	Private Bond Restructuring
Philippines	1987	Paris Club Restructuring
Philippines	1987	Private Bond Restructuring
Philippines	1989	Paris Club Restructuring
Philippines	1990	Private Bond Restructuring
Philippines	1991	Paris Club Restructuring
Philippines	1992	Private Bond Restructuring
Viet Nam	1993	Paris Club Restructuring
Philippines	1994	Paris Club Restructuring
Cambodia	1995	Paris Club Restructuring
Russian Federation	1997	Private Bond Restructuring
Viet Nam	1997	Private Bond Restructuring

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Table A4 *continued*

Name	Year	Restructuring
Indonesia	1998	Paris Club Restructuring
Pakistan	1999	Paris Club Restructuring
Pakistan	1999	Private Bond Restructuring
Russian Federation	1999	Private Bond Restructuring
Indonesia	2000	Paris Club Restructuring
Russian Federation	2000	Private Bond Restructuring
Russian Federation	2000	Private Bond Restructuring
Pakistan	2001	Paris Club Restructuring
Indonesia	2002	Paris Club Restructuring
Kyrgyz Republic	2002	Paris Club Restructuring
Tajikistan	2002	PRC Restructuring
Kyrgyz Republic	2003	PRC Restructuring
Myanmar	2004	PRC Restructuring
Indonesia	2005	Paris Club Restructuring
Kyrgyz Republic	2005	Paris Club Restructuring
Sri Lanka	2005	Paris Club Restructuring
Afghanistan	2006	Paris Club Restructuring
Afghanistan	2007	Paris Club Restructuring
Afghanistan	2010	Paris Club Restructuring
Sri Lanka	2010	PRC Restructuring
Tajikistan	2011	PRC Restructuring
Myanmar	2013	Paris Club Restructuring
Tonga	2013	PRC Restructuring
Kazakhstan	2014	PRC Restructuring
Kyrgyz Republic	2014	PRC Restructuring
Tonga	2014	PRC Restructuring
Sri Lanka	2016	PRC Restructuring
Nepal	2017	PRC Restructuring
Tonga	2018	PRC Restructuring
Maldives	2019	PRC Restructuring
Vanuatu	2019	PRC Restructuring
Maldives	2020	Paris Club Restructuring—DSSI
Myanmar	2020	Paris Club Restructuring—DSSI
Nepal	2020	Paris Club Restructuring—DSSI
Pakistan	2020	Paris Club Restructuring—DSSI
Papua New Guinea	2020	Paris Club Restructuring—DSSI
Samoa	2020	Paris Club Restructuring—DSSI
Tajikistan	2020	Paris Club Restructuring—DSSI
Kyrgyz Republic	2021	Paris Club Restructuring—DSSI
Maldives	2021	Paris Club Restructuring—DSSI
Nepal	2021	Paris Club Restructuring—DSSI
Pakistan	2021	Paris Club Restructuring—DSSI
Papua New Guinea	2021	Paris Club Restructuring–DSSI
Samoa	2021	Paris Club Restructuring—DSSI
Lao PDR	2022	PRC Restructuring
Sri Lanka	2024	Paris Club Restructuring
Sri Lanka	2024	Private Bond Holders
Sri Lanka	2024	PRC Restructuring

Source: Compiled by the authors using data from Horn, Reinhart and Trebesch. (2021), Cruces and Trebesch (2013), and the Paris Club.