

ESCAP FINANCING FOR DEVELOPMENT SERIES NO.4

FINANCING THE SDGs TO BUILD BACK BETTER FROM THE COVID-19 PANDEMIC IN ASIA AND THE PACIFIC



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FOREWORD



The financing needs to achieve the Sustainable Development Goals (SDGs) were substantial even before the COVID-19 pandemic; US \$1.5 trillion for the Asia-Pacific region or 5 per cent of the region’s combined GDP. The pandemic has rolled back decades of economic progress, wrought havoc on public finances and exacerbated such financing challenges. To build back better, effectively pursue the SDGs, and tackle climate change, sizeable investments, especially by the public sector, need to be sustainably financed.

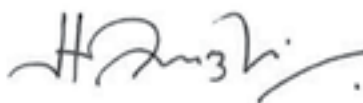
The latest issue of ESCAP’s Financing for Development Series, *Financing the SDGs to build back better from the COVID-19 pandemic in Asia and the Pacific*, reviews a range of financing instruments, strategies and mechanisms that can help Asia-Pacific economies recover from the pandemic, work towards achieving the SDGs and support climate action. The report builds on the global initiative of the United Nations system on *Financing for Development in the Era of COVID-19 and Beyond*. The initiative put forward a comprehensive menu of policy options that can help member States finance economic recovery and accelerate progress towards the 2030 Agenda for Sustainable Development and the Paris Agreement under the pandemic.

The report starts with a discussion on the importance of ensuring access to vaccines, and then delves into policy considerations that can help countries to address rising debt vulnerabilities, deal with taxation-related aspects of illicit financial flows and strengthen the role of national development banks in support of SDGs. In the following two dedicated chapters, the report takes a “deep dive” into the role of innovative and digital finance strategies to address the financing gaps and suggests key regulatory and solution-oriented policy actions that can help scale-up financing in support of the SDGs.

Financial backing for programmes related to the achievement of the Sustainable Development Goals remains fundamental for countries to "build forward better" to create resilient, inclusive and sustainable economies. However, the rising debt burden faced by developing countries in the region is becoming a daunting challenge and constraining fiscal space considerably. Therefore, innovative financing instruments are required to both streamline existing financial flows and generate additional financial resources in a fiscally responsible and sustainable manner. The "deep dive" chapter on innovative financing covers policy instruments such as green bonds, mechanisms such as debt for climate swaps, and strategies such as climate risk disclosure and reporting. The chapter also discusses the importance of enabling policy frameworks for climate action.

The second "deep dive" chapter looks at the potential of digital finance to support the achievement of the SDGs. Digital finance has the potential to transform how we engage in economic activities and do business. New solutions in the digital space are enabling unbanked and underbanked individuals to access financing and engage in the real economy. Digital platforms linked with digital payment systems have also supported businesses to swiftly transition during the pandemic to online means of doing business. Despite the global shift towards digital finance, barriers still remain. Digital infrastructure, interoperable payment systems and the ability for financial clients to meet customer due-diligence processes are just a few of the critical challenges still faced by the policymakers and regulators in ensuring an inclusive and reliable digital finance ecosystem. The chapter takes a critical look at these challenges and identifies opportunities and policy options which can drive digital finance adoption in the Asia-Pacific region.

I am sure that policymakers, researchers and other stakeholders in the Asia-Pacific region will find the rich analytical discussion and solution-oriented policy recommendations of this report beneficial. We must understand that without closing the financing gap, we are unlikely to achieve SDGs and implement meaningful climate action. The time for policy action is now.



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EXECUTIVE SUMMARY

The COVID-19 pandemic caused an extraordinary socio-economic crisis throughout the world, and the prospects for recovery remain uncertain and uneven across countries. While in the second half of 2020, the emergency measures to contain the virus were relaxed in many parts of the world, allowing for moderate recovery of economic activity, the spread of the new and more contagious Delta variant of the disease has led to a new wave of infections globally, and especially in the Asia-Pacific region. On the positive side, 2021 has also witnessed the large-scale rollout of several effective vaccines, but the benefits of vaccinating a significant proportion of the global population have been impeded by considerable inequalities in access to vaccines. The overall socioeconomic policy responses have also been rather limited in many developing countries, due to fiscal and financial constraints. It is worth highlighting that the pursuit of sustained economic recovery, sustainable development, and climate action require substantial financial resources going forward.

The United Nations system responded to the financing challenges posed by the pandemic through the launch of a global initiative on Financing for Development in the Era of COVID-19 and Beyond in May 2020, which led to the preparation of a detailed menu of policy options to finance the recovery and accelerate progress towards the 2030 Agenda and the Paris Agreement. The “menu of options” — discussed at two global meetings of Ministers of Finance and Heads of State and Government in September 2020 — was initially structured in chronological order from the most urgent options (need for liquidity) to long-term options (recovering better), with providing fresh external finance and plugging the holes (debt relief, prevention of illicit financial flows) in between.

This report, the fourth issue of ESCAP’s Financing for Development Series, analyzes the selected policy options proposed as part of the global initiative on *Financing for Development in the Era of COVID-19 and Beyond* with a focus on the Asia-Pacific region. Specifically, it reviews a range of financing instruments, strategies, and mechanisms that can help Asia-Pacific economies recover from the pandemic and effectively pursue the SDGs. After an overview of selected policy options in Chapter 1, the report takes “deep dives” on two issues. Chapter 2 examines innovative financing instruments such as green bonds, mechanisms such as debt for climate swaps and regulatory approaches such as climate risk disclosure and reporting to support climate action and the SDGs. Chapter 3 discusses the potential benefits of and risks associated with digital finance to support sustainable development in Asia and the Pacific, and articulates the contours of an action agenda.

Selected policy options: Ensuring access to vaccines, addressing debt vulnerabilities, dealing with international taxation issues, and strengthening national development banks

Chapter 1 discusses four broad options of the global Financing for Development initiative, and assesses their relevance for Asia-Pacific policymakers. The first one, ensuring equitable access to COVID-19

vaccines, was highlighted during the meeting of Heads of State and Government in September 2020. Noting that the pandemic is far from over, with a large spike in the number of COVID-19 infections in Asia and the Pacific in April and May 2021 and a smaller but nonetheless significant increase in cases in August 2021, the chapter underscores the criticality of the rollout of vaccines. In this regard, the region has made substantial progress as of September 2021, with a median vaccination rate of 42.4 per cent of the population, which is slightly higher than the global average. However, the data shows highly heterogeneous access to vaccines in the region, with rates exceeding 60 per cent of the population in countries such as Cambodia, Malaysia, Maldives, Mongolia, and Singapore and less than 20 per cent of the population in others such as Armenia, Kyrgyzstan, Bangladesh, Viet Nam and Nepal. Therefore, there is a need to step up efforts to increase vaccine production and ensure that vaccines reach 70 per cent of the world's population in the first half of 2022, as highlighted by the Secretary-General of the United Nations at the 75th General Assembly session in September 2021.

The second policy option analyzed is enhancing liquidity and addressing debt vulnerabilities. To better understand country-specific issues vis-à-vis debt distress, the analysis classifies countries into three groups: (i) those that are eligible for the G20's Debt Service Suspension Initiative (DSSI), (ii) those that are not eligible to the DSSI and have sovereign credit ratings below investment grade, and (iii) those that are not eligible to the DSSI and have investment grade sovereign credit ratings. The rationale for this grouping is that the first category is eligible to the G20's Common Framework for Debt Treatments beyond the DSSI, in case a debt restructuring is needed, while the third cluster has access to global capital markets to refinance external debt. This leaves the second group, without access to the Common Framework and little access to the global capital markets due to their credit ratings, in the most vulnerable situation. The analysis shows that two of the four countries with highest debt services-to-exports ratios in the region belong to that group. This finding reveals a gap in the current debt architecture that needs policy attention. The report also includes a discussion of other potential solutions to the debt challenge, such as availability of emergency financing by international financial institutions (IFIs) and major multilateral development banks (MDBs), the recent new allocation of special drawing rights (SDRs), and the importance of developing local currency bond markets.

The third option deals with tackling some aspects of illicit financial flows (IFFs), especially those related to international taxation. After discussing the challenges posed by a lack of consensus on defining and measuring IFFs and the work of the United Nations High Level Panel on International Financial Accountability, Transparency and Integrity for Achieving the 2030 Agenda, the chapter reviews major international tax challenges. These include aggressive tax planning by multinational enterprises and tax havens exploited by wealthy individuals, excessive tax competition, and taxing the rapidly growing digital economy. It then discusses the work of major multilateral global cooperation initiatives to deal with IFFs, including: the Base Erosion and Profit Shifting (BEPS) Project; the Global Forum on Transparency and Exchange of Information for Tax Purposes; and the United Nations Committee of Experts on International Cooperation in Tax Matters. In this vein, it is worth highlighting that on 1 July 2021, the G20 finance ministers endorsed an unprecedented agreement of 130 countries and jurisdictions

to introduce an international tax on multinational enterprises and set a global minimum tax rate of 15 per cent. Notwithstanding the importance of this agreement, its implementation will require significant capacity building and technical advisory support to smaller and poorer countries as well as special provisions that take into account the needs and vulnerabilities of developing countries.

The fourth policy option covered in Chapter 1 discusses the role of national development banks (NDBs) in aligning finance with the SDGs and the Paris Agreement. NDBs play five crucial roles in the development process of a country, and currently there are 135 public development banks operating in Asia and the Pacific, including 14 multilateral development banks (MDBs), such as the World Bank and the Asian Development Bank: (i) counteracting the pro-cyclical behaviour of private financing; (ii) promoting innovation and structural transformation; (iii) enhancing financial inclusion; (iv) supporting the financing of infrastructure investment; and (v) supporting the provision of public goods, including to address climate change. To contribute to achieving the SDGs and the Paris Agreement, the world's public development banks, including all multilateral and national development banks, committed at the November 2020 Finance in Common Summit to collectively shift their strategies, investment patterns, and activities. For this purpose, Chapter 1 recommends strengthening the institutional effectiveness of national development banks to achieve development outcomes by setting a clear mandate, improving operational strategies and governance, and ensuring financial sustainability. An effective monitoring and evaluation system that captures developmental impacts — and not only financial outcomes — would be important as well.

Supporting sustainable development and climate action through innovative financing instruments, mechanisms, and policies

Chapter 2 explores the potential contributions of thematic bonds, climate risk disclosure and reporting, debt-for-climate swaps, and enabling policy frameworks that can enhance the flow of finance to climate mitigation and adaptation projects and the SDGs. The rapidly growing market for thematic bonds, such as green, social, sustainability and climate bonds, provides an opportunity for developing countries in Asia and the Pacific to raise additional financing dedicated to climate action and the SDGs. However, the technical and institutional capacities to issue thematic bonds are uneven across the region, though some developing countries have already been successful in issuing thematic bonds. Developing countries should consider adopting global standards and taxonomies for thematic bonds issuances, which include clear indications of the kind of projects that can be financed with the proceeds from the bonds, as well as monitoring and reporting frameworks.

Climate change entails new financial risks, including physical risks due to climate and weather-related events, such as floods and storms that damage property, and transition risks such as technologies becoming obsolete due to regulatory changes and disruptions to existing business models. While these risks are not trivial and need to be disclosed to be adequately factored in by investors and markets, the lack of a standardized framework to make such disclosures comparable across jurisdictions has been

a serious challenge. Recently, there is an increasing understanding of the need to align disclosure standards with the framework proposed by the Task Force on Climate-related Financial Disclosures (TCFD), established in December 2015, and to establish pathways to mandatory disclosures.

A promising mechanism with growing support for mobilizing climate finance while at the same time providing debt relief to highly indebted developing countries is debt-for-climate swaps. A debt-for-climate-swap is a voluntary agreement between a debtor country and its creditors, in which the former's debt stock is reduced in exchange for a verifiable commitment to invest in climate mitigation or adaptation projects. In addition to providing debt relief, debt-for-climate swaps can provide both a dedicated source of funding to the debtor's Nationally Determined Contributions (NDCs) and an opportunity for a developed country creditor to fulfill its climate finance obligations under the United Nations Framework Convention on Climate Change (UNFCCC). A well-designed debt-for-climate swap requires several steps, including thorough consultations with all stakeholders to ensure strong political support and an effective monitoring, reporting and verification framework. Ensuring that the deal provides additionality to other sources of finances, as well as ownership by the debtor country, are also fundamental and a well-designed term-sheet is key to reduce transaction costs and streamline the negotiations.

The deep dive on various innovative financing options to support SDGs and climate action ends with an overview of enabling climate finance policies in selected Asia-Pacific countries based on results from a new climate finance policy index developed by ESCAP. The discussion concludes that in addition to 'de-risking' financial instruments by the government to encourage investments in green technologies, strong and coherent legal, regulatory, and institutional frameworks are also needed. Such frameworks are necessary to facilitate collaboration between governments, regulators, development banks, and private investors with the aim of channelling finance towards low-carbon and climate-resilient development pathways.

Optimizing the benefits of digital finance to accelerate progress towards the Sustainable Development Goals

Chapter 3 highlights that digital technology is fundamentally changing how we share information, conduct financial transactions and do business. The COVID-19 pandemic has further accelerated the shift towards the use of digital technologies, including the use of digital finance, e-commerce and platforms which enable businesses and consumers to engage through contactless digital means. Platforms, linked with digital payment systems, have supported businesses to swiftly transition to the e-commerce sphere during the pandemic, and new innovative digital finance solutions are enabling unbanked and underbanked individuals to access financing and engage in the real economy like never before.

However, barriers to digital financial services remain, inhibiting the developmental opportunities that accompany access and usage of formal financial services. These barriers are multifaceted and include

the limitations to digital infrastructure and interoperability of payment systems; digital and/or financial illiteracy; and regulatory challenges in striking the right balance between under and over regulation, among others. There are also a host of risks which regulators must consider to ensure client protection and healthy market competition. Digital platforms collect and analyse large amounts of personal information, such as names, identification numbers, addresses, purchasing patterns, and payment history. The concentration of data in the hands of major platforms creates issues around the ethical and legal limits of data processing, data security, and data monopolization, all of which must be addressed by regulators.

This chapter discusses the potential of digital finance to support sustainable development in the Asia-Pacific region, and takes a critical look at the challenges and risks present, along with the available opportunities and innovations, that can drive digital finance adoption in the region, and discusses policies and regulations that are required. Strategies, policies and regulations needed to accelerate the digital finance ecosystem and optimize the benefits of digitalization in support of the region's efforts towards SDG are noted.

The recommendations for policymakers and regulators include ensuring that domestic legal and regulatory systems do not hinder innovation and competition, which requires clear, accessible rules regarding company registration, tax, employment and other matters relevant to businesses. The use of regulatory sandboxes and collaboration among regulators, particularly for cross-border payment solutions, to enable innovation while maintaining vigilance and compliance with international standards on anti-money laundering and counter-terrorism financing are also recommended. Policymakers and regulators should also consider the issuance of standards and guidelines for the collection and use of personal and psychometric data, which can support client protection and prevent predatory and/or discriminatory impacts on client, and the adoption of sovereign digital IDs, a critical tool to facilitate access to a broad range of public and private services. Digital financing can also serve as a multifaceted catalyst for broad economic recovery in an unprecedented era of pandemic-induced market upheaval. Finally, policy makers can capitalize on the advantages of the rapid technological growth to improve fiscal capacities while pursuing climate resilient pathways and progress towards the achievement of the SDGs.

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Since its inception in 2015, the ESCAP biennial series on financing for development has published monographs on a range of critical issues on financing for development from the regional perspective of Asia and the Pacific. The series provides substantive analyses and policy discussions that contributes to regional and national dialogues on strategies for the implementation of selected aspects of financing for development as advanced by both the Addis Ababa Action Agenda and the 2030 Agenda for Sustainable Development.

The 4th edition of the series was prepared under the overall direction of Kaveh Zahedi, Deputy Executive Secretary of ESCAP, by a team led by Alberto Isgut, Acting Chief, Financing for Development Section, under the guidance of Hamza Malik, Director, Macroeconomic and Financing for Development Division. The core team included Zenathan Adnin Hasannudin, Deanna Morris, Douglas Arner, Patrick Martin, and Artem Sergeev. Shuvojit Banerjee, Daniel Jeong-Dae Lee, Zheng Jian, Cedric Javary, Nitin Madan, Xiaochen Zhang, Aryan Agarwal, Patchara Arunsuwannakorn, Luciana Baglioni, Clara Daniele, Alexander Kovalenko, Pranee Samchaiwattana, Yeshay Thaye, and Xinbei Zhou provided valuable inputs. Nick Agnew, Han Jiang, and Pavitra Kanagaraj provided research assistance. Comments and suggestions by Hamza Malik, Masato Abe, Sweta Saxena, Vatcharin Sirimaneetham, Tientip Subhanij, and Erik Grigoryan are gratefully acknowledged.

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EXPLANATORY NOTES

Groupings of countries and territories/areas referred to are listed alphabetically as follows:

- **ESCAP region:** Afghanistan; American Samoa; Armenia; Australia; Azerbaijan; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Cook Islands; Democratic People’s Republic of Korea; Fiji; French Polynesia; Georgia; Guam; Hong Kong, China; India; Indonesia; Iran (Islamic Republic of); Japan; Kazakhstan; Kiribati; Kyrgyzstan; Lao People’s Democratic Republic; Macao; China; Malaysia; Maldives; Marshall Islands; Micronesia (Federated States of); Mongolia; Myanmar; Nauru; Nepal; New Caledonia; New Zealand; Niue; Northern Mariana Islands; Pakistan; Palau; Papua New Guinea; the Philippines; the Republic of Korea; the Russian Federation; Samoa; Singapore; Solomon Islands; Sri Lanka; Tajikistan; Thailand; Timor-Leste; Tonga; Turkey; Turkmenistan; Tuvalu; Uzbekistan; Vanuatu; and Viet Nam.
- **Least developed countries:** Afghanistan, Bangladesh, Bhutan, Cambodia, Kiribati, Lao People’s Democratic Republic, Myanmar, Nepal, Solomon Islands, Timor-Leste, Tuvalu, and Vanuatu. Samoa was part of the least developed countries prior to its graduation in 2014.
- **Landlocked developing countries:** Afghanistan, Armenia, Azerbaijan, Bhutan, Kazakhstan, Kyrgyzstan, Lao People’s Democratic Republic, Mongolia, Nepal, Tajikistan, Turkmenistan, and Uzbekistan.
- **Small island developing States:** Cook Islands, Fiji, Kiribati, Maldives, Marshall Islands, Micronesia (Federated States of), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.
- **East and North-East Asia:** China; Democratic People’s Republic of Korea; Hong Kong, China; Japan; Macao, China; Mongolia; and the Republic of Korea.
- **North and Central Asia:** Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkmenistan, and Uzbekistan.
- **Pacific:** American Samoa, Australia, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Caledonia, New Zealand, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.
- **South and South-West Asia:** Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka, and Turkey.
- **South-East Asia:** Brunei Darussalam, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam.

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References to dollars (\$) are to United States dollars, unless otherwise stated. The term “billion” signifies a thousand million. The term “trillion” signifies a million million.

ABBREVIATIONS AND ACRONYMS

AML/CFT	Anti-Money Laundering/ Combating Financing of Terrorism	IMF	International Monetary Fund
AUM	Assets Under Management	IPCC	Intergovernmental Panel on Climate Change
ASEAN	Association of Southeast Asian Nations	KPI	Key Performance Indicators
BEPS	Base Erosion and Profit Shifting	KYC	Know-your-customer
CBI	Climate Bond Initiative	LCY	Local Currency
CDD	Customer Due Diligence	LIC	Low Income Countries
CPTA	Cross-border Paperless Trade in Asia and the Pacific	LDC	Least Developed Country
CEPI	Coalition for Epidemic Preparedness Innovations	MDB	Multilateral Development Bank
CFPI	Climate Finance Policy Index	MNO	Mobile Network Operator
COP	UNFCCC Conference of Parties	MRV	Monitoring, Reporting, and Verification Framework
CRVS	Civil Registration and Vital Statistics	MSME	Micro, Small, and Medium-sized Enterprises
DFTF	Digital Financing Task Force Report	NDB	National Development Bank
DOTS	Direction of Trade Statistics	NDC	Nationally Determined Contributions
ECOSOC	United Nations Economic and Social Council	NPL	Non Performing Loans
ESG	Environmental, Social, and Governance Standards	ODA	Overseas Development Assistance
FACTI	Financial Accountability, Transparency and Integrity	OECD	Organisation for Economic Co-operation and Development
FATF	Financial Action Task Force	PDB	Public Development Bank
GAVI	Global Alliance for Vaccines and Immunisation	PRGT	Poverty Reduction Growth Trust (IMF)
GBP	Green Bond Principles	P2P	Peer-to-Peer Lending
GHG	Greenhouse Gas	SDG	Social Development Goals
G2P	Government-to-Persons	SDR	Special Drawing Rights
ICMA	International Capital Markets Association	SIDS	Small Island Developing States
IFF	Illicit Financial Flows	SPV	Special Purpose Vehicle
IFI	International Financial Institution	TCFD	Task Force on Climate-related Financial Disclosures
		UIN	Unique Identification Number
		UNFCCC	UN Framework Convention on Climate Change
		WHO	World Health Organization

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FINANCING THE SDGs IN THE ERA OF COVID-19: A REVIEW OF SELECTED ISSUES¹

INTRODUCTION

The COVID-19 pandemic has caused an extraordinary socio-economic crisis throughout the world. To control the spread of the deadly virus and reduce pressure on overwhelmed health systems, governments imposed unprecedented physical distancing policies, including lockdowns, business closures, and travel bans. These emergency policy measures succeeded in flattening the curve of the contagion and saved lives but resulted in millions of job losses and brought countless businesses to the verge of bankruptcy. Poor and vulnerable groups have been disproportionately affected, with ESCAP estimating that 89 million people in Asia-Pacific have been pushed below the US \$1.90 per day threshold of extreme poverty. Unemployment and inequality have surged, with job losses concentrated amongst low-income workers, particularly women and youth. The informal sector has been particularly hard hit, putting the livelihoods of many of the 1.3 billion informal workers in the region at risk.²

In the second half of 2020, the emergency measures were relaxed in many parts of the world, allowing for some recovery of economic activity. However, during 2021, the spread of the new and more contagious Delta variant of the disease has led to a new wave of infections globally, especially in the Asia-Pacific region. On the positive side, 2021 has also witnessed a large-scale rollout of several effective vaccines. The benefit of vaccinating a significant proportion of the global population, however, has been impeded by considerable inequalities in access to vaccines between

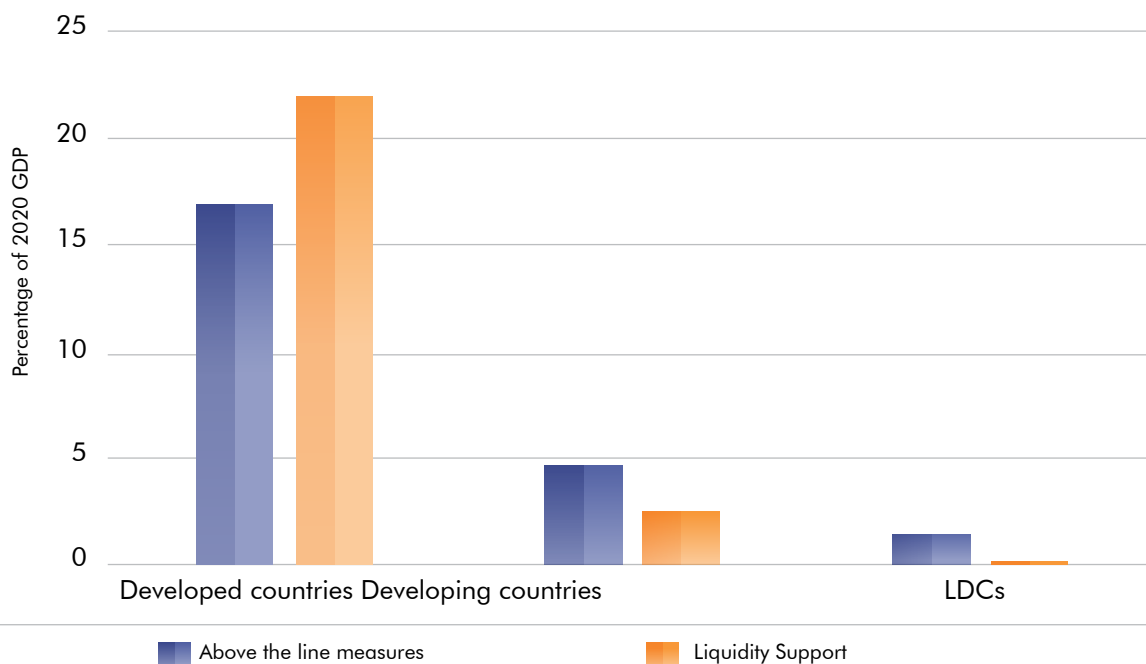
developed and developing countries. Consequently, the harsh impact of the new wave of the pandemic on developing countries globally and within the Asia-Pacific region is closely related to the lack of access to vaccines.

The policy responses to the socio-economic crises induced by the pandemic have also been highly uneven across countries. In several developing countries, government measures have been rather limited due to fiscal and financial constraints, including the need to continue servicing foreign currency-denominated debts amid sharply diminished inflows of foreign exchange. The disparities in policy measures are particularly stark when comparing developed countries and least developed countries (LDCs). Figure 1 shows the fiscal response to address the economic and social challenges posed by the COVID-19 pandemic in Asia and the Pacific. The measures shown are grouped into “above the line” measures, such as additional spending or tax cuts, which result immediately in higher budget deficits, and liquidity support for companies in financial trouble through loans, equity injections, or guarantees that do not have an immediate impact on budget deficits but may increase debt.³ The figure shows a marked discrepancy in the fiscal responses between developed countries and developing countries, with LDCs having the weakest response.

¹ This chapter was prepared by Alberto Isgut. Shuvojit Banerjee, Daniel Jeong-Dae Lee, and Zheng Jian provided valuable inputs. Nick Agnew, Han Jiang, Pavitra Kanagaraj, and Xinbei Zhou provided research assistance. Comments and suggestions by Hamza Malik, Sweta Saxena, and Vatcharin Sirimaneetham are gratefully acknowledged.

² UNESCAP (2021). Economic and Social Survey of Asia and the Pacific: Towards post-COVID-19 resilient economies.

³ International Monetary Fund (2020). Fiscal Monitor.

Figure 1: Fiscal response to the COVID-19 pandemic in Asia and the Pacific

Source: ESCAP, based on IMF data (2021). Database of Fiscal Responses to COVID-19. (Accessed 2 September 2021).

Note: Estimates as of 5 June 2021. The numbers are based on official estimates covering cumulative spending in 2020 and the first five months of 2021. The fiscal measures include resources allocated or planned in response to the COVID-19 pandemic since January 2020, which will cover implementation in 2020, 2021, and beyond.

Going forward, the recovery prospects across countries will continue to depend on the access and speed of vaccinations, the risk of new and more dangerous variants of the virus emerging, and governments' capacities to continue providing fiscal support. In this context, a so-called K-shaped economic recovery is likely, with poorer countries and more vulnerable groups within countries suffering from marginalization and widening inequalities. Furthermore, the uneven pace of recovery and constrained fiscal space may derail progress towards the 2030 Agenda for Sustainable Development and the Paris Agreement. Importantly, the pursuit of global economic recovery, sustainable development and climate action requires substantial financial resources.

To respond to the financing challenge, the Secretary-General of the United Nations, along with the Prime Ministers of Canada and Jamaica, launched a global

initiative on Financing for Development in the Era of COVID-19 and Beyond (henceforth FFDI) in May 2020. Between June and August 2020, six Discussion Groups were set up to prepare a detailed menu of policy options to finance the recovery and accelerate progress towards the 2030 Agenda and the Paris Agreement (see details in Box 1). The "menu of options" was discussed at two global meetings between Ministers of Finance and Heads of State and Government in September 2020, which resulted in a refinement and prioritization of the options.⁴ Subsequently, in 2021, the UN system set up six thematic clusters to take forward the recommendations from the menu of options and provide technical and policy advisory support to member States. The six clusters cover sustainability and climate action, socio-economic response, finance and technology, liquidity and debt vulnerability, illicit financial flows, and address special country needs.⁵

⁴ United Nations (2021). High-Level Meeting on financing the 2030 Agenda for Sustainable Development.

⁵ United Nations, Inter-agency Task Force on Financing for Development (2021). Financing for Sustainable Development Report 2021.

Box 1: Areas considered by the six Discussion Groups

The areas considered by the six Discussion Groups^a were established at the May 28, 2020 High-Level Event that launched the global initiative. They were initially structured in a chronological order from the most urgent (need for liquidity) to long-term (recovering better), while providing fresh external finance and liquidity to fill financing gaps (debt relief and IFFs prevention).^b

1. The urgent need to expand **liquidity** in the global economy, including through the additional issuance of Special Drawing Rights at the IMF.
2. The need for an across-the-board debt standstill for all developing countries that request forbearance, **debt relief**, and progress on the international debt architecture.
3. The need to create a space in which **private creditors** can proactively engage in effective and timely solutions to respond to the looming debt crisis and avoid the significantly higher cost to investors and societies that would result from a disorderly wave of defaults.
4. Prerequisites for enhancing **external finance** for inclusive growth and creating jobs, including measures to enhance FDI, portfolio investment, long-term credit facilities, and lowering the transaction costs of migrant remittances.
5. Measures to prevent illicit financial flows, assist in repatriating such flows, and prosecute perpetrators.
6. **Recovering better** for sustainability and inclusion, as an integral component of achieving the SDGs by 2030.

As part of these global efforts and to support the implementation of policy options, ESCAP organized a high-level event in August 2020 to discuss Asia-Pacific perspectives on the menu of policy options.^c The participants agreed that the immediate priority has to be containing the spread of the virus to save lives and

livelihoods. They also emphasized the need to safeguard the sustainability of debt obligations in vulnerable countries, particularly those negatively impacted by the collapse of tourism revenues and declines in remittances. They suggested placing the SDGs and the Paris Agreement commitments at the heart of recovery plans, including by scaling up digitalization to enhance financial inclusion.^d

The purpose of this chapter is to analyze selected policy options proposed as part of the global FFDI process with a focus on the Asia-Pacific region. These options are organized chronologically, from the most urgent and short-term to those that will require more time to implement. The first option highlighted is ensuring equitable access to COVID-19 vaccines. Although access to vaccines is not part of the menu of options, its importance was underscored by the Heads of State and Government at the 29 September 2020 high-level meeting where the options were discussed. The second option discussed is enhancing liquidity and addressing debt vulnerabilities. The focus of this section is on taking stock of the debt situation in Asia and the Pacific and identifying groups of countries at higher risk of debt distress. Tackling illicit financial flows (IFFs), which divert valuable and scarce resources away from government budgets, is the third policy option discussed.^e Given the reduced fiscal space caused by the COVID-19 pandemic and the need for resources to support countries' recovery efforts and the attainment of the SDGs and the Paris Agreement, controlling IFFs is a key priority. The focus of this section is on tax-related aspects of IFF, for which a historical agreement was reached in July 2021. The final option discussed is to align public finance with the SDGs and the Paris Agreement. This section focuses on the role of national development banks (NDBs), which was highlighted at the Finance in Common Summit, held in November 2020.

Source: ESCAP

^a United Nations (2021). The Launch of Discussion Groups of the Financing for Development in the Era of COVID-19 and Beyond.

^b United Nations (2020). High-Level Event on Financing for Development in the Era of COVID-19 and Beyond.

^c United Nations Economic and Social Commission for Asia and the Pacific (2020). Regional Conversation Series on Building Back Better: Financing for Development in the Era of COVID19 and Beyond.

^d Ibid.

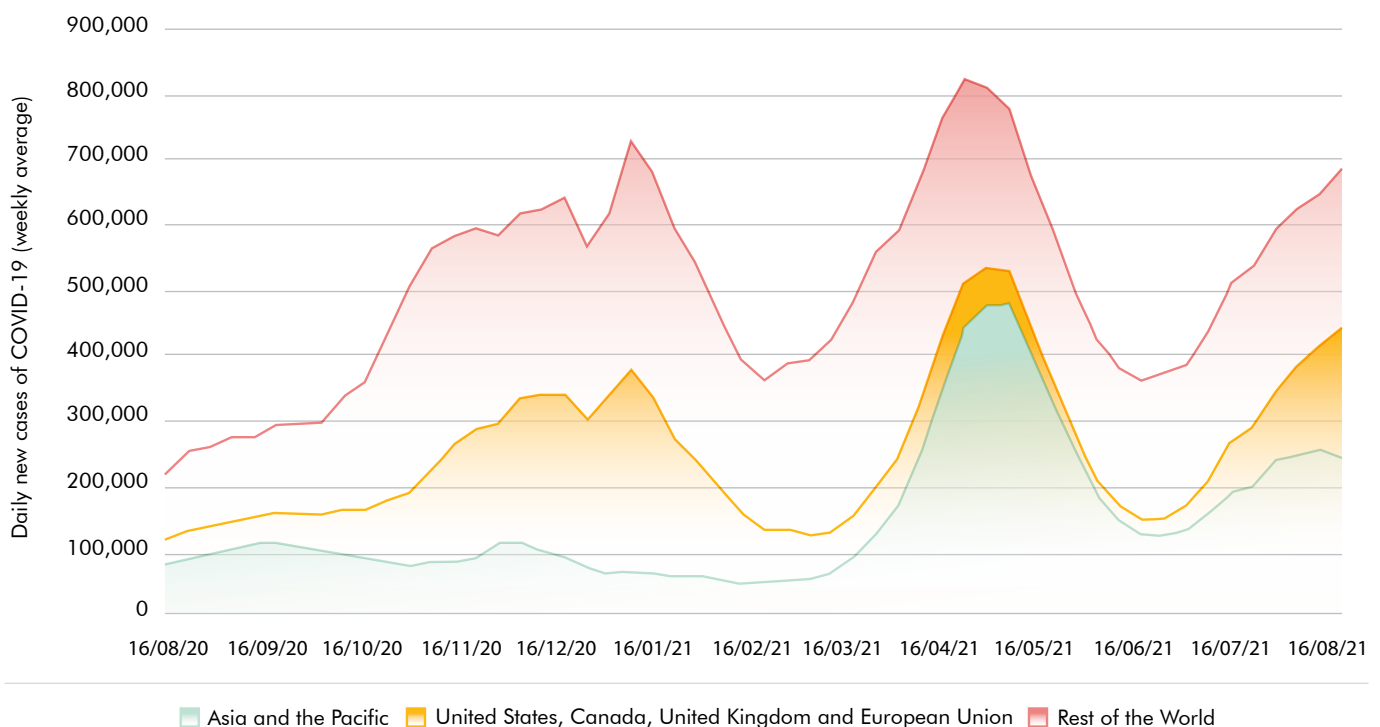
^e United Nations (2020). High Level Meeting on Financing the 2030 Agenda for Sustainable Development in the Era of COVID-19 and Beyond.

1. ENSURE EQUITABLE ACCESS TO COVID-19 VACCINES

As of mid-September 2021, close to 230 million people have tested positive for COVID-19 globally and close to 4.7 million people have lost their lives.⁶ However, a clear divergence in the number of cases amongst developed Western countries and developing countries globally and in Asia-Pacific can be seen in Figure 2. There was a sharp upturn in cases in developing Asia-Pacific countries between March and May, which then decreased somewhat in June before increasing again in July. At all times the number of cases in 2021 have remained higher than levels seen in 2020 in Asia and the Pacific. This uptick in infections has been primarily due to the spread of a more contagious Delta variant of the disease and the slow rollout of vaccines. While Western developed countries have also been exposed to the Delta variant, they initially managed to reduce its impact due to their high access to vaccines until mid-July, when cases started to rise again.

The pandemic has not only caused a major global health emergency but also the deepest peacetime global economic recession since the Great Depression of the 1930s. Global GDP dropped by 3.3 per cent in 2020,⁷ while in the Asia-Pacific region it declined from 6 per cent in 2019 to -1.5 per cent in 2020.⁸ The prospects of a sustained economic recovery critically depend on the access to vaccines across the globe. With the cumulative output loss to the global economy from the pandemic projected to grow from more than \$11 trillion in 2020-2021 to \$28 trillion over 2020-25, accelerating access to vaccines can save trillions in lost incomes and livelihoods.⁹

Figure 2: Confirmed daily new cases of COVID-19, by country group



Source: ESCAP based on data from Source from Our World in Data. (Accessed 22 August 2021).

⁶ World Health Organization (n.d.). Coronavirus (COVID-19) Dashboard. (Accessed 18 September 2021).

⁷ IMF (2021). World Economic Outlook.

⁸ UNESCAP (2021). Economic and Social Survey of Asia and the Pacific: Towards post-COVID resilient economies.

⁹ Gita Gopinath (2020). A Long, Uneven and Uncertain Ascent. IMF Blog.

1.1. Vaccines procurement and distribution in Asia and the Pacific

The challenge for developing countries in the region, as it is globally, is how to increase access to vaccines in an accelerated manner to save lives and allow for the revival of economies. The COVAX initiative, launched in early 2020 by the World Health Organisation (WHO) in partnership with the Coalition for Epidemic Preparedness Innovations (CEPI) and the Global Alliance for Vaccines and Immunisation (GAVI), aimed to fast-track the development and manufacture of COVID-19 vaccines and to guarantee fair and equitable access for every country. By pooling demand and resources, COVAX supports the procurement and fair allocation of COVID-19 vaccines to participating countries, regardless of their income level. The initiative was intended to raise funding for 92 low- and middle-income countries to purchase doses,¹⁰ with another 98 higher-income countries participating on a self-funded basis.¹¹ The funding sources of COVAX include official development assistance, support from foundations and private donors, and concessional loans from multilateral development banks.

However, in practice the initiative has failed to achieve its goals. While high-income countries have received nearly 100 vaccine doses per 100 citizens, low-income countries have been able to administer only 1.5 doses per every 100 citizens.¹² A key reason why developing countries failed to have adequate access to vaccines through this multilateral initiative has been the emergence of what is now termed “vaccine nationalism”. The commitments of countries to supply vaccines to the initiative have not panned out as anticipated as developed countries reserved more doses for domestic use following the upswing in infections in 2021.

This supply problem has been compounded by funding problems for COVAX. The promised funding for COVAX from developed countries has failed to sufficiently materialise and has led to shortfalls in the ability of the initiative to purchase vaccines.¹³ Countries which therefore relied on their allocations through COVAX have been belatedly looking to directly acquire vaccines from suppliers through commercial arrangements. This has presented two challenges. One is that commercial supplies are already reserved for other countries, and thus latecomers are placed at the back of the queue. Another issue is the lack of sufficient funding for low-income developing countries from multilateral and bilateral sources to directly purchase vaccines.

Given these challenges, it is critical that multilateral initiatives such as COVAX are reinforced as they remain the most effective solution to addressing the challenge of global access to vaccines. This will require credible commitment by countries of major vaccine manufacturers to allow global exports through such multilateral initiatives and to ensure adequate funding by the global community.¹⁴ Such commitments are necessary, not only for the ethical imperative to save the lives of vulnerable citizens in all countries, but also from the point of view of the national self-interest of both vaccine-manufacturing countries and donor countries, as the pandemic will not be over until it is controlled everywhere.

The Delta variant originated in developing countries where there was fast growth of the initial disease due to lack of vaccinations, which then allowed the disease to flourish and mutate. This variant then spread to the

¹⁰ The Asia-Pacific countries eligible to receive vaccines from the COVAX facility are the following: Afghanistan, Bangladesh, Bhutan, Cambodia, Fiji, India, Indonesia, Kiribati, Democratic People's Republic of Korea, Kyrgyzstan, Lao People's Democratic Republic, Maldives, Marshall Islands, Micronesia (Federated States of), Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Tajikistan, Timor-Leste, Tonga, Tuvalu, Uzbekistan, Vanuatu, and Viet Nam.

¹¹ These include the following Asia-Pacific countries: Armenia, Australia, Azerbaijan, Brunei Darussalam, Georgia, Iran (Islamic Republic of), Japan, New Zealand, Palau, Republic of Korea, Singapore, Thailand, Turkey, and Turkmenistan.

¹² WHO (2021). WHO Director-General's opening remarks at the media briefing on COVID-19 - 4 August 2021.

¹³ As of 8 September 2021, COVAX distributed more than 240 million vaccine doses in 139 countries, well short of its goal to distribute 2 billion doses by the end of 2021. See Ducharme, J. (2021). COVAX Was a Great Idea, but Is Now 500 Million Doses Short of Its Vaccine Distribution Goals. What Exactly Went Wrong? Time Magazine.

¹⁴ Ibid.

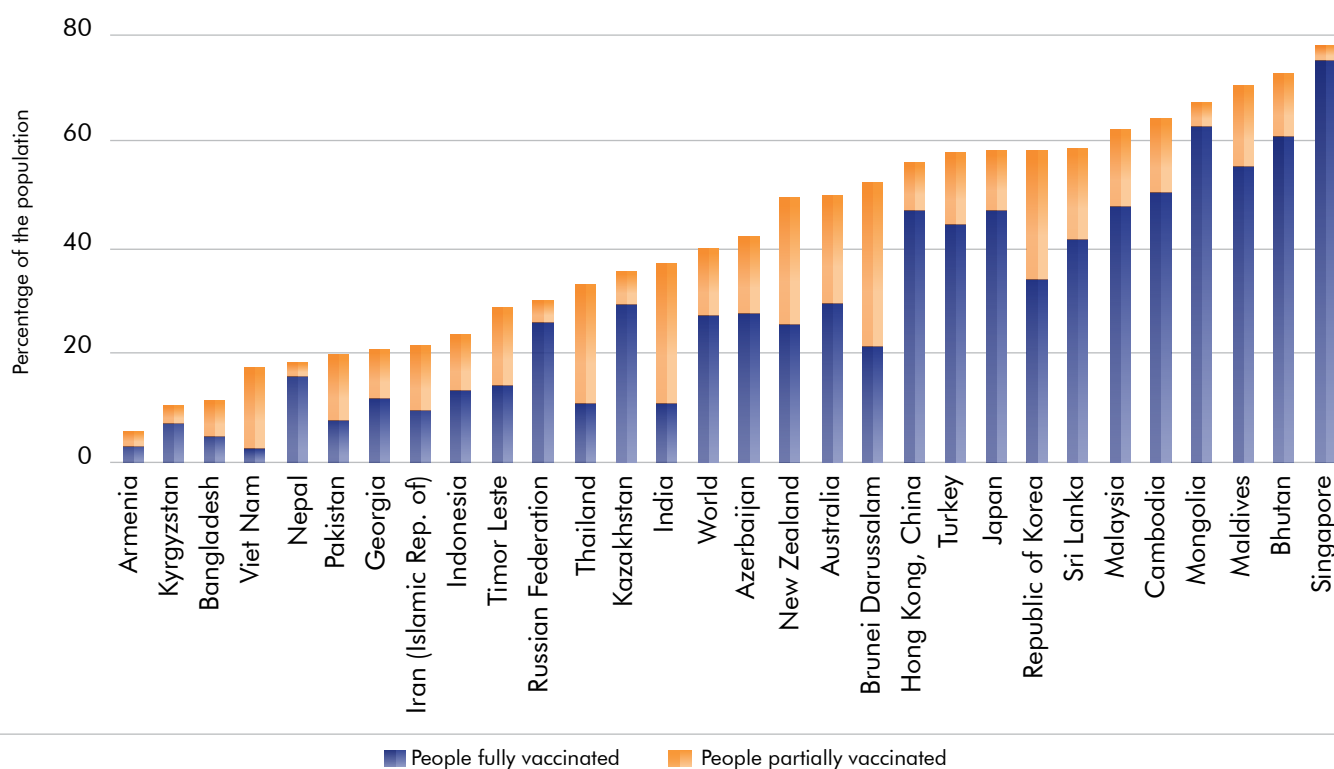
developed world and re-infected these countries, with previous vaccine strategies in developed countries proving less effective in dealing with the new mutations. Thus, neither developed nor developing countries have managed to emerge unscathed from the crisis, with the pessimistic scenario being a continuous cycle of infection and re-infection worldwide. Such a vicious cycle can only hope to be truly truncated once all countries have been protected against the disease through vaccination.

Vaccination rates in Asia and the Pacific, nevertheless, have accelerated lately despite a slow start. Figure 3 shows the latest data at the time of writing. The median vaccination rate for countries in the region is 42.4 per cent,¹⁵ higher than the global average of 40.3 per cent. Singapore, where nearly 80 per cent of the population has received the jab, is among the global top-ten countries for COVID-19 inoculations, and along with Bhutan, Cambodia, Malaysia, Maldives and Mongolia,

has surpassed the United States in vaccinations.¹⁶ At the bottom of the distribution are countries such as Armenia, Kyrgyzstan, Bangladesh, Viet Nam and Nepal, where vaccination rates are less than 20 per cent.

As shown in Box 2, countries' vaccine procurement strategies are an important explanatory factor for the effectiveness of vaccination campaigns, but not the only one. Equally important is the speed of delivery and attitudes of the population about vaccines. The latter issue seems to be illustrated by Australia, which in spite of having purchased enough doses to vaccinate 453 per cent of the population in 2020, it had vaccinated only 50 per cent of the population by September 2021. In contrast, an example of a very effective vaccine rollout is in Cambodia, where enough doses were purchased to vaccinate 66 per cent of the population between February and July 2021, and the country managed to achieve a vaccination rate of 64.3 per cent of the population at the beginning of September 2021.

Figure 3: COVID-19 vaccination rates in Asia and the Pacific



Source: ESCAP based on data from Our World in Data available at <https://ourworldindata.org/covid-cases> (accessed 6 September 2021).

¹⁵ In this sentence and in what follows, including Box 2, vaccination rate is understood as the percentage of the population with at least one shot of a COVID-19 vaccine.

¹⁶ In the case of China, the data source of Figure 3 reports only the number of vaccines given per 100 people. On that metric, China is among the top-20 countries in the world.

Box 2: Vaccine procurement strategies in selected Asia-Pacific countries

Duke University's Global Health Innovation Center tracks information on vaccine procurement around the world based on publicly available information, such as media articles. While their dataset is not comprehensive, it provides useful information on the vaccine doses purchased, timing, and manufacturers for many countries. Purchases of vaccines during 2020 were in the form of advanced market commitments, which are binding contracts to guarantee a viable market for a product once it is successfully developed. Vaccines started to be rolled out by manufacturers in mid-December 2020. Below are some examples from Asia and the Pacific.

Cambodia – With a vaccination rate of 64.3 per cent as of the beginning of September of 2021, Cambodia has been one of the most successful countries in Asia and the Pacific in vaccinating its population against COVID-19. After an initial small purchase of AstraZeneca vaccines on 19 February 2021, Cambodia purchased on 26 March 2021 enough doses of China's Sinovac to vaccinate 44 per cent of its population. Four months later, on 23 July, the government purchased enough Sinopharm to inoculate another 22 per cent of the population.

Australia – Following a strategy common in Western developed economies, in 2020 Australia purchased through advance market commitments enough vaccines to inoculate many times its population. Specifically,

between 7 September and 5 November 2020, the country purchased sufficient Oxford-AstraZeneca, the United States' Novavax, and Pfizer-BioNTech jabs to vaccinate, respectively, 106 per cent, 101 per cent, and 246 per cent of the population. However, as of the beginning of September of 2021, only 50 per cent of Australia's population was vaccinated.

Malaysia – Between 27 November and 21 December 2020, Malaysia purchased enough doses of Oxford-AstraZeneca and Pfizer-BioNTech vaccines to vaccinate 49 per cent of its population. Subsequently, between 26 January and 19 July 2021, the country bought additional jabs of Russia's Sputnik and China's Sinovac and Sinopharm to vaccinate another 43 per cent of citizens. Malaysia had a vaccination rate of 62.3 per cent as of the beginning of September 2021.

Indonesia – As of the beginning of September 2021, Indonesia had a vaccination rate of 24 per cent. Between 16 October and 30 December 2020, the country purchased enough doses of China's CanSino, United States' Novavax, and Oxford-AstraZeneca to vaccinate 24 per cent of its population. Between 14 March and 16 July 2021, Indonesia purchased enough doses of Moderna, Republic of Korea's Genexine, China's Sinopharm and Sinovac, and Pfizer-BioNTech vaccines to inoculate an additional 38 per cent of the population.

Source: ESCAP based on data from Our World in Data. (Accessed 6 September 2021); Duke Global Health Innovation Center. (Accessed 3 September 2021).

Despite the success of some countries in the region in rolling out COVID-19 vaccines, there are still many countries with low vaccination rates, as shown above. This is a global problem that needs urgent attention by world leaders. At the 75th UN General Assembly, the UN Secretary-General called for the implementation of a global vaccination plan by an emergency task force comprised of present and potential vaccine producers,

the World Health Organization, international financial institutions and other partners, with the goal of at least doubling vaccine production and ensuring that vaccines reach 70 per cent of the world's population in the first half of 2022.¹⁷ In the meantime, countries with stocks of vaccines exceeding the needs of their populations should strongly consider donating them to poorer countries with low vaccination rates.

¹⁷ United Nations (2021). Global Crisis Response 'Too Little, Too Late', Secretary-General Tells General Assembly 'Our Common Agenda' Event, Warning of Instability, Climate Chaos.

2. ENHANCE LIQUIDITY AND ADDRESS DEBT VULNERABILITIES

As a response to the socio-economic crisis induced by the pandemic, Asia-Pacific countries deployed substantial fiscal measures to save lives and livelihoods and reinvigorate economic activity. Consequently, the average fiscal deficit among Asia-Pacific developing countries is estimated to have increased from 1.5 per cent of GDP in 2019 to 6.8 per cent in 2020 and 5.6 per cent in 2021. Similarly, the average public-debt to GDP ratio is projected to increase from around 51 per cent in 2019 to 61 per cent in 2020 and 63 per cent in 2021. Such a quick buildup of debt has raised concerns over debt sustainability in several countries.¹⁸

In addition, the pandemic has caused a contraction in net inflows of foreign exchange due to the disruption of international travel and tourism, cuts in foreign direct investments, and a temporary drop in capital flows in many developing countries, threatening their ability to continue servicing their external debts. The possibility of many countries experiencing a debt crisis is worrisome because it could not only delay the recovery from the pandemic but also imperil the attainment of the objectives of the 2030 Agenda for Sustainable Development and the Paris Agreement.

Because the disruption caused by the pandemic has put pressure on foreign exchange reserves and increased liquidity risks, this section focuses on external debt aspects. Developing countries' exposure to external debt, and particularly to foreign currency-denominated external debt, makes them vulnerable to large shocks to export earnings and capital inflows, which can make it difficult for them to service their debt.¹⁹ This section first considers trends in external public debts and their composition in Asia and the Pacific and proposes a classification of countries according to their access to debt relief or global bond markets. It then discusses debt servicing data and emerging risks before providing an overview of possible solutions to provide debt relief, including global initiatives and the development of local currency (LCY) bond markets.

2.1. Trends in Asia-Pacific external public debt prior to the pandemic

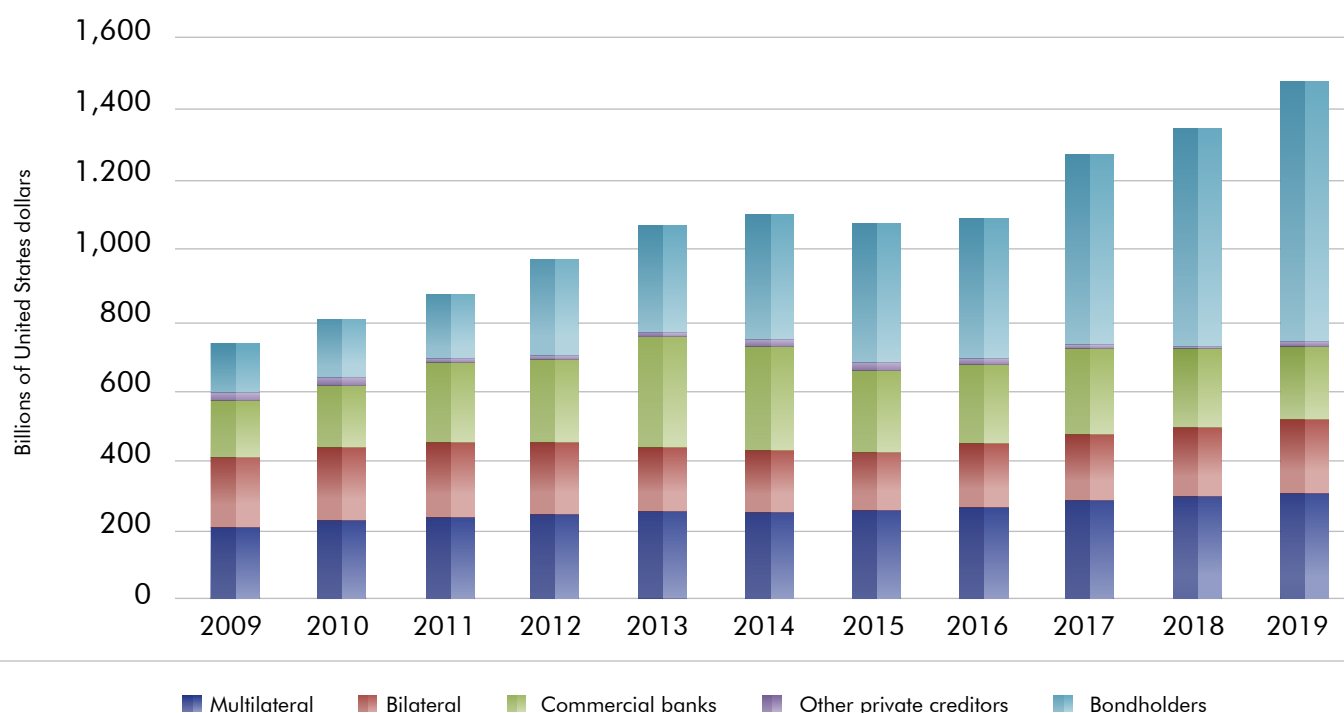
As shown in Figure 4, the public and publicly guaranteed external debt of Asia-Pacific's developing countries has more than doubled in absolute terms, from \$727 billion in 2009 to \$1.47 trillion in 2019, the last year available at the time of writing. This represents an annual average growth rate of 7.3 per cent. However, because of the high economic growth of several developing countries in the region, the public external debt-to-GDP ratio did not increase much during this period. The weighted average, excluding China, increased from 11.6 per cent in 2009 to 13 per cent in 2019, and the unweighted average increased from 22.1 per cent to 26.2 per cent during the same period.

Importantly, the structure of debt has changed, with both MDBs and bilateral creditors becoming relatively less important as providers of external finance. Their share in the aggregate external debt has decreased from 55 per cent in 2009 to 35 per cent in 2019. In contrast, the issuance of sovereign bonds has grown rapidly— at an annual average rate of 18.3 per cent. As a result, the share of the region's debt that is owed to bondholders surged from 19 per cent to 50 per cent. During the same period, the share of commercial banks and other private creditors in the total has dropped from 26 per cent to 15 per cent.

¹⁸ UNESCAP (2021). Economic and Social Survey of Asia and the Pacific: Towards post-COVID resilient economies.

¹⁹ Jensen, Lars. (2021). Sovereign Debt Vulnerabilities in Developing Economies: Which countries are vulnerable and how much debt is at risk? United Nations Development Programme Working Paper.

Figure 4: External public and publicly guaranteed debt of the Asia-Pacific developing countries, by type of creditor



Source: ESCAP based on data from World Bank, DataBank: International Debt Statistics. (Accessed 7 September 2021).

Note: The data includes 35 Asia-Pacific developing countries that report to the World Bank's Debtor Reporting System.

These aggregate figures, however, hide an important degree of heterogeneity in the access to various sources of debt financing. As will be discussed in the section below on global initiatives to address debt risks and provide liquidity, the G20's Debt Services Suspension Initiative (DSSI) and the Common Framework on Debt Treatments beyond the DSSI target a select group of countries for debt relief measures. As such, to further analyze the region's debt situation and provide insights into possible future needs for debt relief it is useful to

classify the Asia-Pacific countries into three groups: (i) countries that are eligible for the DSSI, (ii) non-DSSI eligible countries with access to sovereign bond markets despite credit ratings below investment grade, and (iii) non-DSSI eligible countries with access to sovereign bond markets and investment grade credit ratings. Table 1 shows the composition of the three groups and Figure 5 shows their external debt by type of creditor in 2009 and 2019.

Table 1: Country groups for debt analysis

Country group	Credit rating descriptions*	Countries
1. DSSI eligible countries	No credit rating	Afghanistan, Bhutan, Myanmar, Nepal, Samoa, Timor-Leste, Tonga, and Vanuatu
	Substantial risks	Lao PDR and Maldives
	Highly speculative	Cambodia, Kyrgyzstan, Mongolia, Pakistan, Papua New Guinea, Solomon Islands, and Tajikistan
	Non-investment grade speculative	Bangladesh, Fiji, and Uzbekistan

2.	Non-DSSI eligible countries, with below investment grade ratings	Substantial risks	Sri Lanka
		Highly speculative	Armenia
		Non-investment grade speculative	Azerbaijan, Georgia, Turkey, and Viet Nam
3.	Non-DSSI eligible countries, with investment grade ratings	Lower medium investment-grade	India, Indonesia, Kazakhstan, Philippines, Russian Federation, and Thailand
		Upper medium investment-grade	China

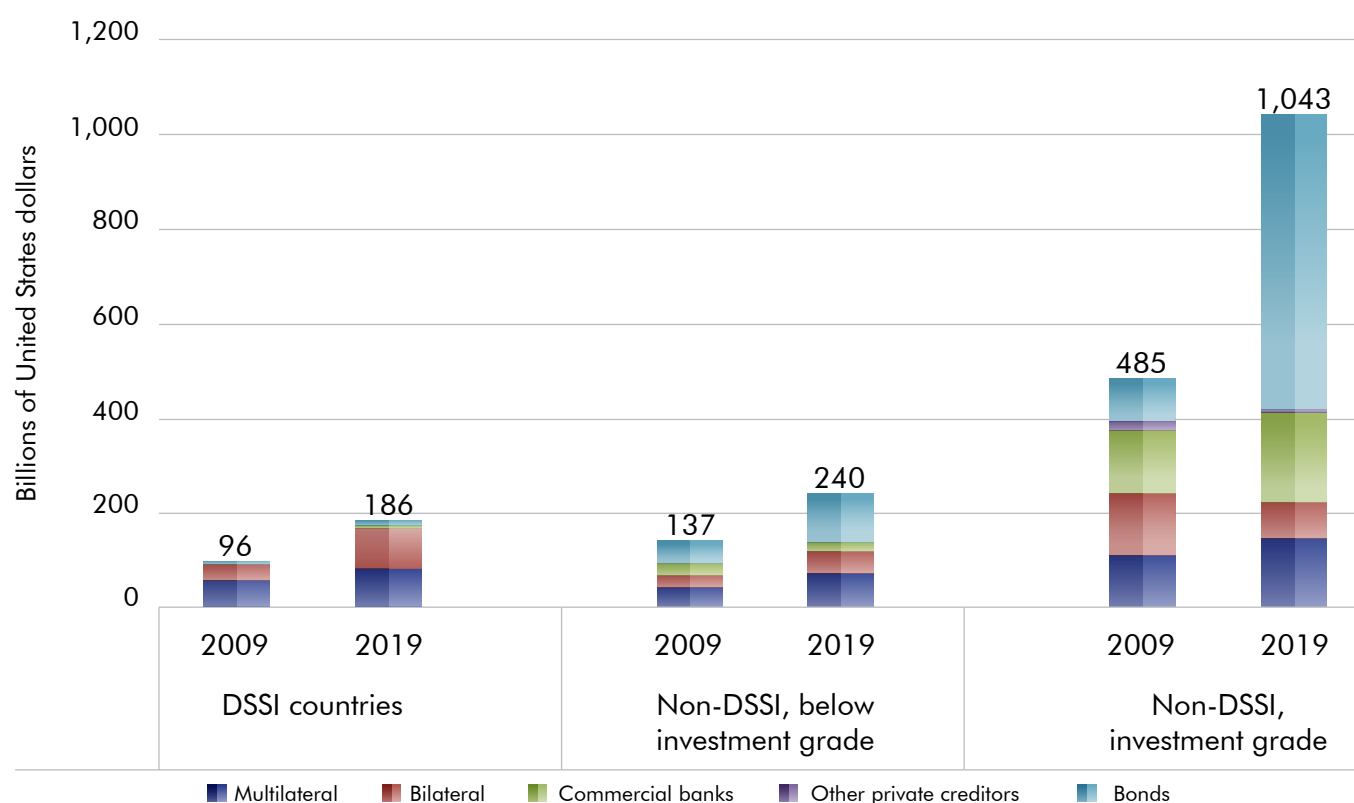
Source: ESCAP based on data from Trading Economics. (Accessed 7 September 2021).

Note: The classification is based on the latest credit rating available for each country from either Moody's, S&P or Fitch as of 7 September 2021. It excludes two developing countries with very low levels of access to external public debt financing: Islamic Republic of Iran and Turkmenistan. Their debt-to-GDP ratios in 2018 were, respectively, 0.1 per cent and 1.2 per cent.

* See the source for the equivalence between the credit rating descriptions and the credit ratings of the main credit rating agencies.

Figure 5:

External public and publicly guaranteed debt of the Asia-Pacific developing countries, by country group and type of creditor



Source: ESCAP based on data from World Bank, DataBank: International Debt Statistics. (Accessed 10 March 2021). See Table 2 for the composition of each category of countries.

The external debt of the Asia-Pacific DSSI eligible countries grew at an annual rate of 6.8 per cent between 2009 and 2019, slightly lower than for the aggregate of all developing countries. Similarly, the annual rate of growth of their debt to bondholders was very high, 17.5 per cent, increasing their share from 2.5 per cent in 2009 to 6.4 per cent in 2019. The debt of DSSI eligible countries with commercial banks also rose rapidly, at a

rate of 19.9 per cent per annum, albeit starting from a very low share of 0.9 per cent of the total in 2009. For this group of countries, official creditors are the most important source of external debt financing. Even with the fast increase in bond and commercial bank debt, bilateral and multilateral creditors accounted for 90.5 per cent of their total external debt in 2019, while the share of multilateral debt decreased from 59.6 per cent

in 2009 to 45.5 per cent in 2019 and bilateral official debt climbed from 35.9 per cent to 45 per cent during the same period.

For the group of countries non-eligible to the DSSI with credit ratings below investment grade, the share of official creditors has remained stable at around 48 per cent. The growth of debt was more moderate than in the other groups, at 5.7 per cent per annum, and bonds were the fastest-growing category. The share of bonds in the total increased by 10.7 percentage points, from 32.9 per cent in 2009 to 43.6 per cent in 2019. This increase was offset by a drop of 10.1 percentage points in the share of commercial banks, from 18 per cent to 7.9 per cent, keeping the share of private creditors stable at around 52 per cent.

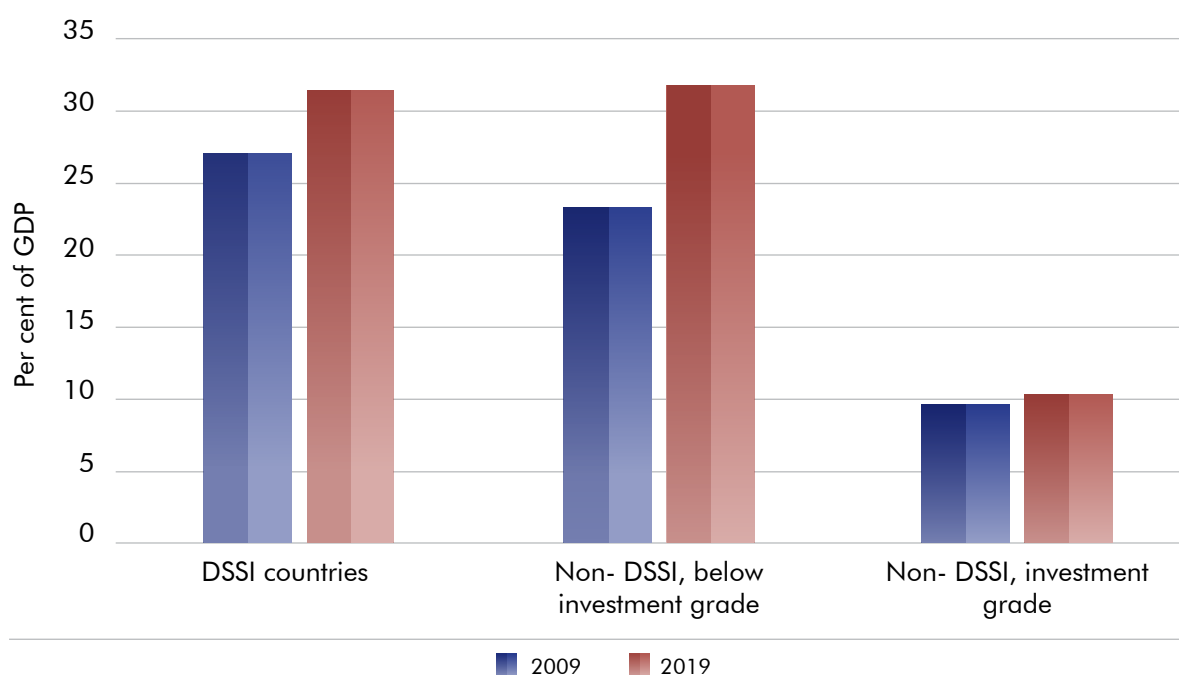
Finally, the group of countries non-eligible to the DSSI with investment grade credit ratings experienced the fastest growth in external debt, 8 per cent per annum. This group also experienced the fastest growth in debt owed to bondholders, at an average annual rate of 21.3 per cent. As such, the stock of bond debt increased by

a factor of almost 7, from \$91 billion in 2009 to 623 billion in 2019, and its share in the total climbed from 18.7 per cent to 59.7 per cent during this period. In contrast, the share of official debt dropped from 50 per cent of the total in 2009 to 21.6 per cent in 2019. The share of commercial bank debt also declined in this period, from 26.9 per cent to 18.8 per cent.

To complete this analysis, Figure 6 shows the average external public debt-to-GDP ratios of the three groups of countries in 2009 and 2019. The highest of these ratios in 2019 is for the non-DSSI eligible countries with credit ratings below investment grade (31.8 per cent), followed closely by the DSSI eligible countries (31.5 per cent). The first group of countries is also the one that experienced the highest increase in the ratio since 2009, 8.5 percentage points, compared to 4.4 percentage points for the DSSI eligible countries. The non-DSSI eligible countries with investment grade credit ratings have the lowest public external debt-to-GDP ratios, 10.4 per cent in 2009, and the lowest increase since 2009, 0.7 percentage points.

Figure 6:

External public and publicly guaranteed debt of the Asia-Pacific developing countries by country group, as percentage of GDP



Source: ESCAP based on data from World Bank, DataBank: International Debt Statistics. (Accessed 10 March 2021). See Table 1 for the composition of each category of countries.

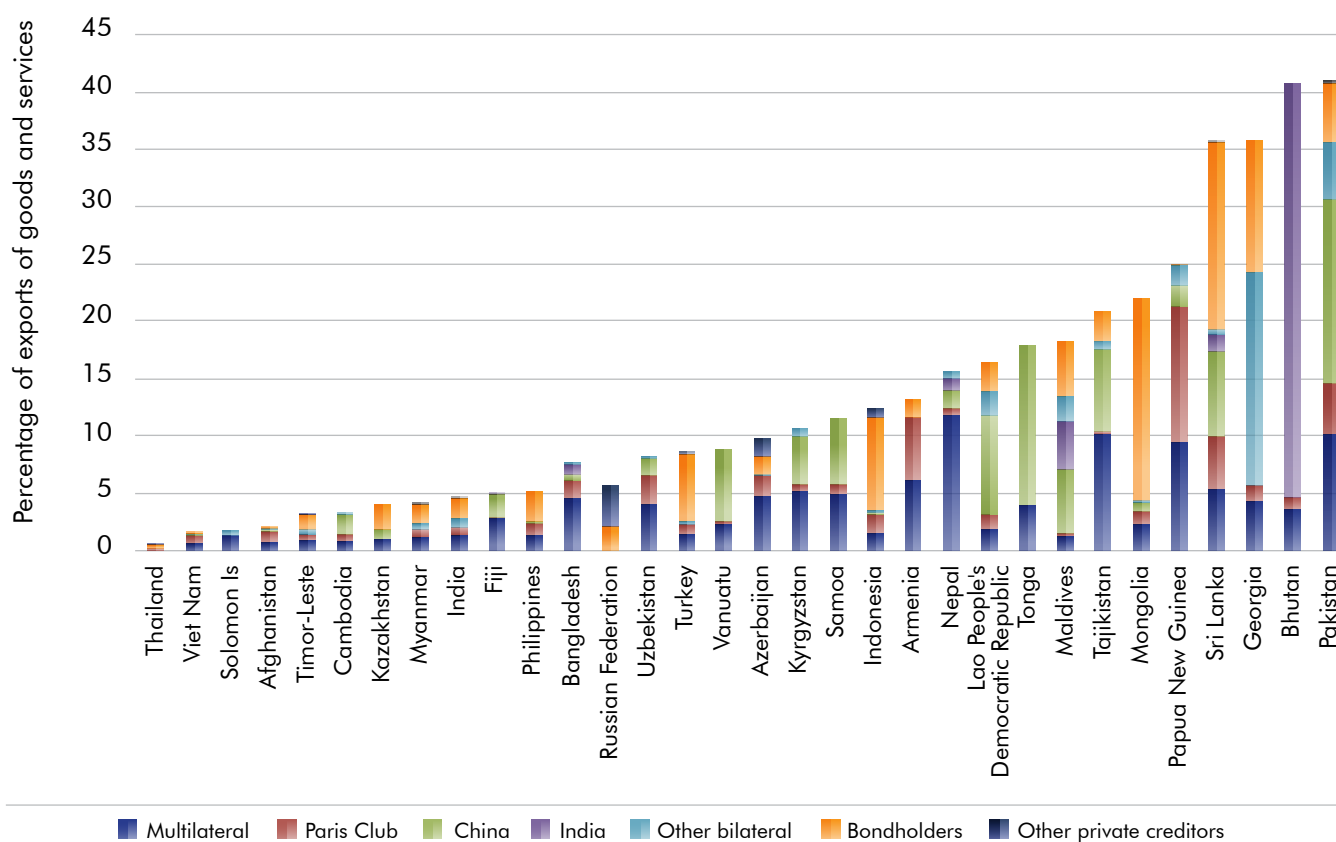
In sum, access to sovereign bond markets is increasing across the developing countries in Asia and the Pacific, but at different speeds and starting from a range of initial levels. For the DSSI-eligible countries, bonds are still a marginal source of external debt finance, although their growth over the last decade was very fast. For these countries official creditors still represent the largest component of their external debts. On the other end of the spectrum, the share of bonds in external debt increased dramatically for countries that are not eligible to the DSSI and have investment grade credit ratings. For these countries, bonds represent the largest source of external debt finance, while the share of official creditors dropped significantly over the last decade. Finally, in countries that are not eligible to the DSSI and have credit ratings below investment grade, the share of bonds as a source of external debt financing increased at a slower pace and their share in the total as of 2019 was less than the share of official creditors. A conclusion of this analysis is that both the DSSI eligible countries and the non-DSSI eligible countries with investment grade credit ratings are better prepared to handle a future with worsening debt conditions. While the former group of countries can take advantage of new global initiatives, such as the Common Framework discussed further below, to restructure their debts if necessary, the latter group have low levels of external debt exposure and their access to global bond markets allows them to refinance obligations, if needed. Non-DSSI eligible countries with credit ratings below investment grade are the most vulnerable group, as they do not have access to the Common Framework and their access to global bond markets is likely to be limited due to their low credit ratings.

2.2. Increase in debt services pressure and additional debt risks

The rapid stockpiling of external debt by the region's developing countries during the last decade is reflected in the debt service payments due in coming years. Figure 7 shows estimates of the debt services-to-exports ratio for 2021 and 2022 for selected developing countries. The official bilateral creditors are broken down into Paris Club creditors, China, India, and other bilateral creditors. The figure includes all the countries in Table 2 except for China, which is a major creditor country. By using 2020 exports in the denominator, which for most countries are significantly below those of 2019, the figure factors in part of the impact of COVID-19.²⁰

²⁰ With regards to debt services, the figure does not capture increases due to higher indebtedness during 2020, which would lead to an underestimate of the ratios. However, this is compensated by assuming that exports remain the same in 2021, while in fact there is evidence that they are recovering this year.

Figure 7: Estimated debt services-to-exports ratios in 2021 and 2022, public and publicly guaranteed debt, by type of creditor



Source: ESCAP based on data from World Bank, DataBank: International Debt Statistics; World Bank, Exports of Goods and Services (Current US\$); IMF, Direction of Trade Statistics (DOTS). (Accessed 7 September 2021).

Note: Estimated debt services-to-export ratios calculated as (sum of debt services due in 2021 and 2022) divided by (exports of goods and services in 2020 times two). Exports of Bhutan, Kazakhstan, Maldives, Timor-Leste, and Tonga were estimated as the annualized variation in exports between the first four months of 2020 and the same period in 2019 taken from the IMF's DOTS database times the value of exports in 2019 from the World Bank database. Exports of Afghanistan, Lao PDR and Papua New Guinea were estimated as the annualized variation in exports between the first four months of 2020 and the same period in 2019 taken from the IMF's DOTS database times the value of exports in 2019 from the IMF's DOTS database.

The data in the figure suggest that the debt level for most developing countries of Asia and the Pacific is sustainable. According to the Debt Sustainability Framework for Low-Income Countries of the IMF and World Bank, prudential thresholds for the debt services to exports ratio are between 10 per cent and 21 per cent, depending on the country's institutional capacity and macroeconomic performance.²¹ More than half of the countries in the region, 17 out of 32, have debt services to exports ratios below 10 per cent, while another seven countries are below the 21 per cent threshold. This leaves only six countries, Mongolia, Papua New Guinea, Sri Lanka, Georgia, Bhutan, and

Pakistan, above the 21 per cent threshold. Of these six countries, three are eligible to the DSSI, although only Papua New Guinea participated. Mongolia managed to reduce its refinancing risks for 2021 and 2022 through a US \$600 million debt buyback for public bonds maturing in these years.²² The other three countries, Sri Lanka, Georgia and Pakistan, are non-eligible to the DSSI and have credit ratings below investment grade. As noted in the previous section, countries in this group are more vulnerable to debt risks because of their non-eligibility to the Common Framework and difficulties in accessing global bond markets as a result of their low credit ratings.

²¹ IMF (2021). Joint World Bank-IMF Debt Sustainability Framework for Low-Income Countries. Factsheet.

²² UNESCAP (2021). Debt Relief in the Aftermath of the Pandemic: How Can Regional Dialogue Help? High-level Side Event at the 77th Session of the Economic and Social Commission for Asia and the Pacific.

Going forward, the increasing reliance of the region's developing countries on external financing from sovereign bonds issuance exposes them to interest, refinancing, and rollover risks. For instance, at the onset of COVID-19 there was a massive capital outflow of foreign investors from emerging markets of nearly \$100 billion between late January and the end of March 2020. As a result, credit spreads on emerging market sovereign bonds increased substantially.

Since April 2020, these markets have stabilized due to the massive injection of liquidity by the developed countries' central banks through asset purchase programs (APPs).²³ Some developing countries have also implemented similar but smaller APPs, and many developing countries in the region were able to issue new debt. However, APPs have contributed to an under-pricing of risk and to driving asset prices to higher levels. As noted by a recent UN DESA report, "these strong price increases have spurred fears of a formation of asset price bubbles amid a growing disconnect between financial markets and the real economy. A bursting of asset price bubbles could result in a rising number of bankruptcies and undermine the still fragile global economic recovery."²⁴ Furthermore, a ruptured asset bubble could also trigger debt crises in developing countries.

The risks to developing countries in sovereign debt markets have been exacerbated by the growth of passively managed, benchmark-driven financial investment strategies. Such investment strategies are

highly sensitive to shifts in global financial conditions, with the resulting capital flows amplifying adverse financial conditions. Their influence is not limited to passive fund management, since 'active' funds aim to outperform passive investment strategies. By some estimates, 70 per cent of emerging market country allocations of investment funds are influenced by benchmark indices.²⁵

Additional risks are associated with private, non-guaranteed external debts and short-term debts. As shown in Figure 8, these tend to increase as a share of the total external debts of developing countries as they consolidate their access to the global sovereign bond markets. The figure shows an increase in the access to both private, non-guaranteed debt and short-term debt as countries improve their credit ratings and levels of development.²⁶ Short-term debt poses rollover risks and puts pressure on markets' liquidity conditions. Private debts can create contingent liabilities for governments if the government needs to bail out private debtors, such as banks or large corporations, to prevent more serious impacts to the domestic economy by events including bank runs, bankruptcies or unemployment.

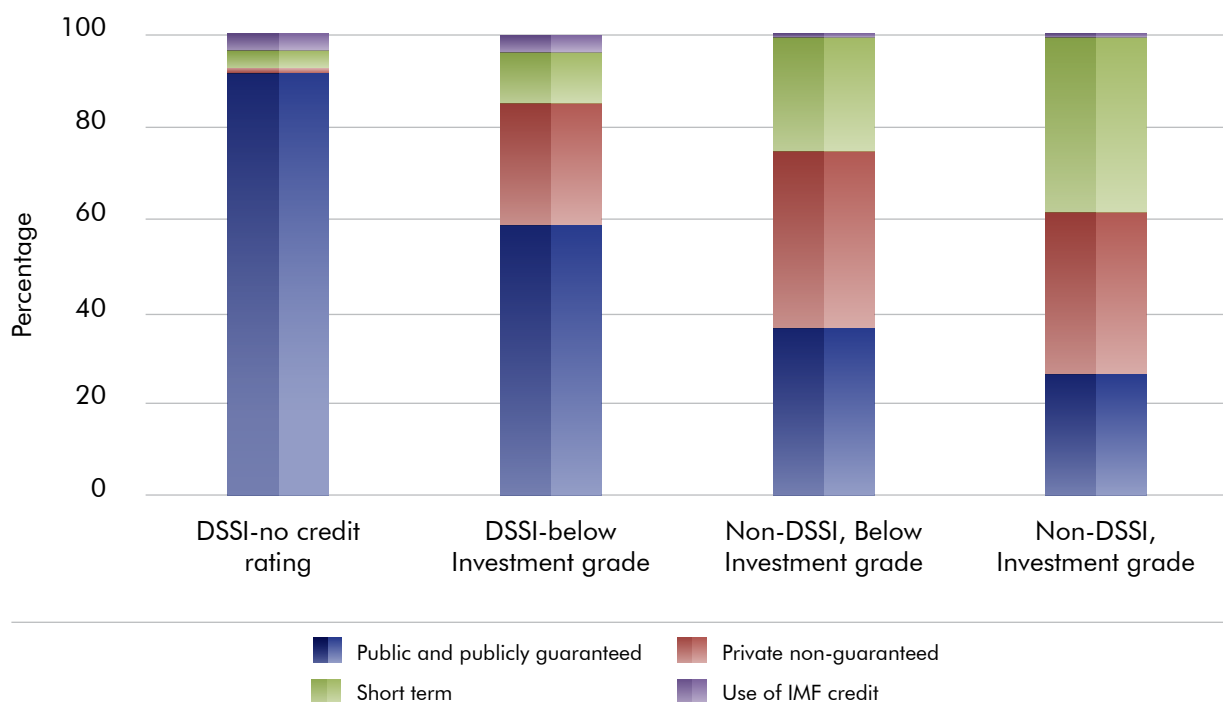
²³ UNDESA (2021). World Economic Situation And Prospects: September 2021 Briefing.

²⁴ Ibid.

²⁵ Inter-Agency Task Force on Financing for Development (2021). Financing Sustainable Development Report.

²⁶ Countries that are eligible to the DSSI increase their access to such debts when they acquire a credit rating even if it is below investment grade. Given such ratings, access is higher for countries not eligible to the DSSI, which are larger middle-income economies. Access is highest for countries with investment grade credit ratings.

Figure 8: Composition of total external debt, by type of creditor



Source: ESCAP based on data from World Bank, DataBank: International Debt Statistics. (Accessed 10 March 2021).

Note: Total external debt is debt owed to non-residents. It is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt. Short-term debt includes all debt with an original maturity of one year or less.

2.3. Global initiatives and regional solutions to address debt risks

The G20 launched the Debt Service Suspension Initiative (DSSI) in April 2020, initially until the end of 2020 but subsequently extended until the end of June 2021 and then to December 2021. The DSSI provided foreign exchange liquidity to low-income countries (LICs) that requested it through a temporary suspension of debt service payments to their official bilateral creditors. The suspended debt services are to be repaid over a period of five years with a one-year grace period. The initiative targeted 73 eligible countries, which include the 72 countries eligible to borrow from the World Bank's International Development Association (IDA), plus Angola. As of September 2021, 48 of the eligible countries are participating in the DSSI.²⁷

Table 2 shows data for the 11 countries from Asia and the Pacific that are currently participating in the DSSI.²⁸ While the initiative has provided a degree of breathing

space, the amount of actual relief has been small. The average potential savings for the 11 Asia-Pacific countries participating in the DSSI between May 2020 and December 2021 is 1.9 per cent of their combined GDP, ranging from a low of 0.2 per cent of GDP for Nepal to 3.7 per cent of GDP for Tonga. This is much smaller than the average external debt services due in 2020 and 2021 by these countries, 5.7 per cent and 4.7 per cent of GDP, respectively. Thus, the debt relief provided by the DSSI accounts for less than 20 per cent of their obligations during the 2020-2021 period. The DSSI provides limited support because it only covers bilateral official debt. While multilateral creditors are not included in the initiative, private creditors were invited to participate on a voluntary basis. However, no debtor country requested their participation for fear of having their sovereign credit ratings downgraded.²⁹

²⁷ World Bank (2021). Debt Service Suspension Initiative.

²⁸ The 13 Asia-Pacific countries that are eligible but are not participating in the DSSI are Bangladesh, Bhutan, Cambodia, Kiribati, Lao PDR, Marshall Islands, Federated States of Micronesia, Mongolia, Solomon Islands, Timor-Leste, Tuvalu, Uzbekistan, and Vanuatu.

²⁹ Indeed, all three major credit agencies made it clear that requesting private sector participation on G20-comparable terms could lead to a downgrade. See World Bank (2020). Debt Service Suspension Initiative: Q&As. .

Table 2: Asia-Pacific countries participating in the Debt Service Suspension Initiative

Country	Risk of external debt distress	Potential DSSI Savings May 2020- December 2021		External debt service due (percentage of GDP)	
		USD millions	Percentage of GDP ¹	2020	2021
Afghanistan	High	112.2	0.6	0.7	0.7
Fiji	...	40.0	0.7	5.8	1.8
Kyrgyzstan	Moderate	167.9	1.9	2.5	2.8
Maldives	High	165.9	2.9	7.2	7.9
Myanmar	Low	1,093.4	1.4	1.3	1.3
Nepal	Low	68.5	0.2	1.2	1.2
Pakistan	...	7,310.2	2.6	5.7	5.3
Papua New Guinea	High	377.4	1.5	20.3	14.4
Samoa	High	26.2	3.1	3.6	3.7
Tajikistan	High	164.9	2.0	11.7	9.9
Tonga	High	18.7	3.7	3.2	3.1
Average			1.9	5.7	4.7

Source: ESCAP based on data from World Bank, COVID-19: Debt Service Suspension Initiative, updated 3 September 2021; World Bank, DataBank: International Debt Statistics. (Accessed 7 September 2021).

Note: Potential savings for the 20 months from May 2020 to December 2021 as a percentage of the 2019 GDP.

At the same time, the international financial institutions (IFIs), which include the International Monetary Fund (IMF) and major multilateral development banks (MDBs), contributed significant amounts of financing to assist developing countries amid the pandemic. By one estimate, they provided \$237.2 billion in COVID-19 related support in 2020.³⁰ The IMF approved \$102.9 billion,³¹ including emergency assistance and precautionary lines of credit, followed by \$39.1 billion by the European Investment Bank

(EIB), \$36.9 billion by the World Bank, \$15.5 billion by the Asian Development Bank, \$14 billion by the Inter-American Development Bank, \$6.8 billion by the Asian Infrastructure Investment Bank (AIIB), and \$6 billion by the New Development Bank.³² While the scale of the response by the IFIs has been significant, with lending estimated to have expanded by 30 per cent between 2019 and 2020, this fell short of the IFI's response to the global financial crisis, when lending increased by 70 per cent between 2008 and 2009.³³

³⁰ Segal, Stephanie, Gerstel, Dylan and Henderson, Joshua (2021). International Financial Institutions' Covid-19 Approvals Approach \$240 Billion for 2020. Center for Strategic and International Studies.

³¹ References to dollars (\$) are to United States dollars, unless otherwise stated.

³² Ibid. In addition, the European Bank for Reconstruction and Development committed \$5 billion, African Development Bank \$3.6 billion, Corporación Andina de Fomento US \$3.2 billion, Islamic Development Bank \$2.3 billion, the Arab Monetary Fund US \$1.2 billion, and the Eurasian Fund for Stabilization and Development \$0.7 billion.

³³ Humphrey and Prizzon (2020). Scaling up multilateral bank finance for the Covid-19 recovery. Overseas Development Institute.

Recognizing that some countries may need additional debt relief beyond a suspension of debt service payments, the G20 Riyadh Leaders' Summit endorsed a Paris Club's agreement to launch a Common Framework for Debt Treatments beyond the DSSI.³⁴ The Common Framework will coordinate Paris Club and other G20 bilateral creditors in the provision of debt relief to DSSI eligible countries on a case-by-case basis. As of early September 2021, only three African countries — Chad, Ethiopia, and Zambia — expressed interest in receiving debt relief through the Common Framework. See Box 3 for details on this initiative.

A complementary way to support developing countries experiencing difficulties to service their external debts is through a new allocation of Special Drawing Rights (SDR). The SDR is an international reserve asset created by the IMF in 1969 to supplement its member countries' official reserves.³⁵ New allocations of SDRs have been infrequent. Before the current crisis, the previous one took place in 2009 for an amount of \$250 billion with the aim of enhancing global liquidity amid the global financial crisis of 2008.³⁶ This allocation resulted in increases in foreign exchange reserves by 19 per cent in low income countries and 7 per cent in emerging economies.³⁷

Box 3: Main characteristics of the Common Framework for Debt Treatments

1. *Eligibility:* DSSI eligible countries.
2. *Initiation of the process:* Upon request of debtor countries.
3. *Assessment:* The need for debt restructuring will be assessed through the IMF-WB debt sustainability analysis (DSA) and the collective assessment of the bilateral creditors.
4. *Eligible debt:* Public and publicly guaranteed debt with a maturity of one year or more.
5. *Data disclosure:* Applying debtors will provide the necessary information regarding all public sector debt, while respecting commercially sensitive information.
6. *Participation of bilateral creditors:* All bilateral creditors, including members of the G20 and the Paris Club plus others on a voluntary basis, will participate in restructuring exercises.
7. *IMF program:* Debtors receiving support will engage in an upper credit tranche (UCT) IMF-supported program.
8. *Debt write-offs:* Although discouraged, they will be considered if needed.
9. *Burden sharing:* There will be a fair burden sharing among official creditors. Private creditors will be expected to offer a treatment at least as favourable as that offered by official creditors.
10. *Creditor coordination:* The debtor will sign a Memorandum of Understanding (MOU) with participating creditors. The debtor will be required to seek from all its other official bilateral creditors and private creditors a treatment at least as favourable as the one agreed in the MOU. The debtor will be required to provide signatories of the MOU regular updates on the progress of its negotiations with its other creditors.

Source: ESCAP based on Paris Club (2020) Extension of the Debt Suspension Initiative and Common Framework for Debt Treatments; G20 (2020) Statement Extraordinary G20 Finance Ministers and Central Bank Governors' Meeting.

³⁴ See Paris Club (2020). Extension of the Debt Suspension Initiative and Common Framework for Debt Treatments; Annex 1 of the Statement released after the Extraordinary G20 Finance Ministers and Central Bank Governors' Meeting 13 November 2020.

³⁵ International Monetary Fund (2020). Special Drawing Rights (SDR).

³⁶ International Monetary Fund (n.d.). 7 things you need to know about SDR allocations.

³⁷ Herman, Barry (2020). What You Really Need to Know About the SDR and How to Make it Work for Multilateral Financing of Developing Countries. Challenge.

On 2 August 2021, the IMF Board of Governors approved a general allocation of SDRs equivalent to \$650 billion (approximately SDR 456 billion), to boost global liquidity.³⁸ This is the largest SDR allocation in the history of the IMF. The newly created SDRs are credited to IMF member countries in proportion to their existing quotas in the Fund.³⁹ This allocation, however, has no relationship with countries' financial needs. For instance, of the \$190.5 billion to be allocated to 48 Asia-Pacific countries that are members of the IMF, five high-income countries which do not really need additional support — Australia, Japan, New Zealand, Republic of Korea and Singapore — will receive \$69.8 billion, or 36.7 per cent of the total.

However, IMF members with strong external positions can voluntarily channel part of their SDRs to scale up lending for low-income countries. One option is through the IMF's Poverty Reduction and Growth Trust (PRGT). Concessional support through the PRGT is currently interest-free, but only low-income countries and small economies are eligible.⁴⁰ Therefore, the IMF is exploring the option of creating a new Resilience and Sustainability Trust, which could lend at cheaper rates and longer maturities to provide fiscal space for countries to undertake green reforms and policies, including middle-income countries vulnerable to climate change.⁴¹

An option that developing countries in Asia and the Pacific could consider to reduce risks associated with rising external debts is to develop their local currency (LCY) bond markets. Deep and efficient domestic

debt markets can provide the government with a stable source of funding, including for large infrastructure investments, while increasing resilience to shocks by mitigating currency risks.⁴² In Asia, the development of LCY bond markets became a policy priority following the 1997 Asian financial crisis. Since then, these markets have grown considerably. Liquidity has improved over time with a broader investor base and support by regional cooperation, such as the Asian Bond Markets Initiative. Emerging East Asia's LCY bond market stood at \$20.3 trillion at the end of March 2021, including \$12.6 trillion in government and \$7.8 trillion in corporate bonds.⁴³ China has witnessed a five-fold increase in a decade, reaching close to \$10 trillion in 2020, while ASEAN governments surpassed the \$1 trillion mark the same year, and India maintains about \$1 trillion in government debt securities, most of which have been issued in local currency.⁴⁴

Fig. 9 shows the shares in GDP of the LCY government debt and the public and publicly guaranteed external debt with bondholders of four Asian countries with developed LCY bond markets: Indonesia, Philippines, Thailand, and Viet Nam. Although the two concepts are not directly comparable,⁴⁵ they illustrate the relative development of the LCY bond market in these countries as a source of government financing. While in Indonesia, the LCY bond market is comparable in size with the government's external debt to bondholders, in the Philippines, Thailand, and Viet Nam, the former is substantially more important as a source of government financing.

³⁸ IMF (2021). IMF Governors Approve a Historic US \$650 billion SDR Allocation of Special Drawing Rights.

³⁹ IMF quotas determine members' financial commitment to the IMF, voting power and access to financial resources from the IMF. The current quota formula is a weighted average of GDP (weight of 50 per cent), openness (30 per cent), economic variability (15 per cent), and international reserves (5 per cent). See IMF (2021). IMF Members' Quotas and Voting Power, and IMF Board of Governors for the current allocation of IMF quotas across members.

⁴⁰ The list of countries eligible to the PRGT overlaps closely with the list of countries eligible to the DSSI.

⁴¹ IMF (2021). Remarks by IMF Managing Director on Global Policies and Climate Change. International Conference on Climate..

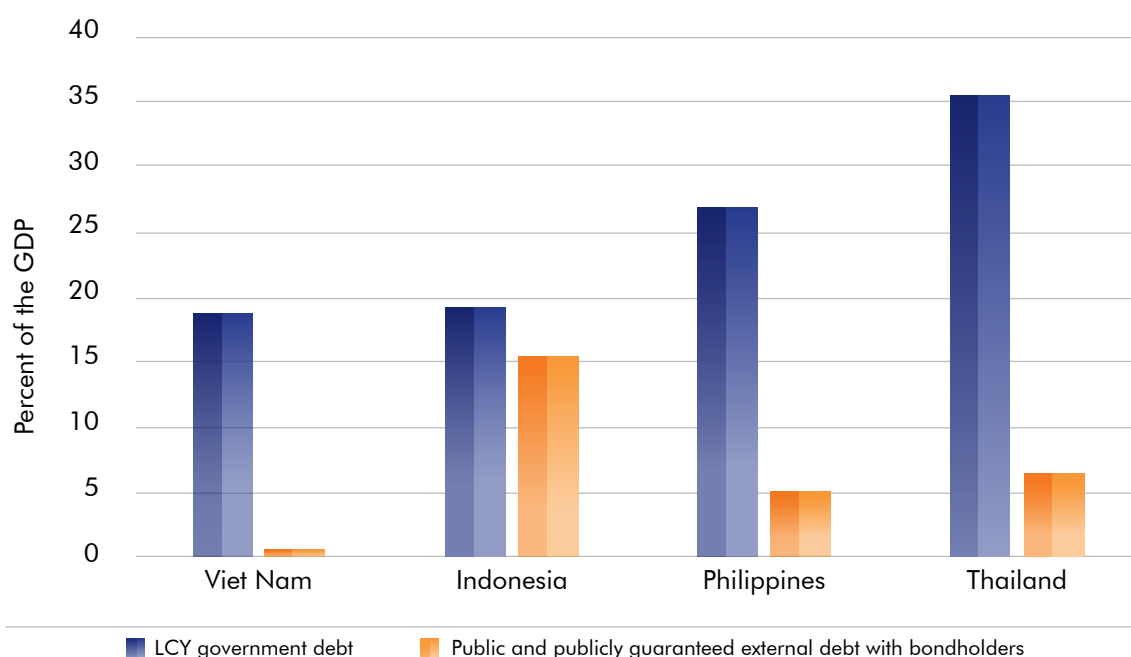
⁴² Domestic debt markets could also contribute to the reduction of current account imbalances, lower the need for large precautionary reserve holdings, and allow banks and corporate balance sheets to adjust more smoothly, hence, improving the capacity of macroeconomic policies to respond to external shocks. See G20 (2011). Action plan to support the development of local currency bond markets. G20 summit, Cannes.

⁴³ ADB (2021). Asia Bonds Monitor.

⁴⁴ Bank for International Settlements (n.d.) India.

⁴⁵ The public and publicly guaranteed external debt with bondholders may include debt denominated in local currency and in foreign currency, while the LCY government debt does not include guarantees.

Figure 9: LCY government debt and public and publicly guaranteed external debt with bondholders in selected Asian countries in 2019, percentage of the GDP



Source: ESCAP based on data from World Bank, DataBank: International Debt Statistics; Asian Bonds Online. (Accessed: 6 July 2021)

While the development of LCY bond markets provides a useful source of government financing, it is important to keep in view that they are not completely exempt from risks. For instance, if foreign investors holding a large position in local currency bonds decide to sell in a short time, this could create sudden downward pressure on the exchange rate. In addition, the development of such markets takes time and should proceed in stages. In the initial stage, the focus should be on establishing a functioning primary market and creating the enabling conditions for secondary market development; at the deepening stage, the focus should be on improving the liquidity of the secondary market; and in the maturing stage, the focus should be on the development of sophisticated instruments and segments, such as derivatives, and making the market internationally competitive.⁴⁶

In sum, the development of LCY bond markets offers a promising solution for more countries in Asia and the Pacific to reduce dependence on foreign currency denominated public debts and their consequent risks. Although such development is a long-term proposition, the recent experience of Bhutan suggests that even small least developed countries have the capacity to start it.⁴⁷ Besides their potential to provide government financing, the development of LCY bond markets can also facilitate access to innovative financial instruments such as thematic bonds, which are discussed in detail in Chapter 2.

⁴⁶ See Jonasson, T. and Papaioannou, M. (2018). A Primer on Managing Sovereign Debt-Portfolio Risks. IMF Working Papers; IMF and World Bank (2021). Guidance Note for Developing Government Local Currency Bond Markets.

⁴⁷ Bhutan issued its first sovereign bond in 2020 with technical assistance provided by ESCAP. See Subhanij, T., Abe M., and Hasannudin, Z. (2020), Bhutan's First Sovereign Bond: Financing Lessons during the Pandemic. ESCAP Blog.

3. TACKLE ILLICIT FINANCIAL FLOWS, WITH A FOCUS ON TAX-RELATED ASPECTS

Illicit Financial Flows (IFFs) are a major drain on the resources available to governments in countries at all income levels. Traditionally, the discussion of IFFs focused primarily on financial flows linked to illegal activities with a negative impact on fiscal space, the economy, and societies in general.⁴⁸ This narrow definition has been broadened over time to take into account practices such as tax avoidance, financial secrecy, and trade mis-invoicing.⁴⁹ Although such practices are not strictly illegal, they are widely associated with financial flows that could be detrimental for sustainable development in many countries.

Developing countries are especially vulnerable, as the drain on the economy is larger in relation to the GDP and state capacity is lower. IFFs constrain the available fiscal space for government action and undermine developing countries' provision of basic services, trust in the social contract, and progress toward achieving the SDGs. Combatting IFFs is crucial for the COVID-19 response as countries look for ways to bolster domestic budgets to spend on social protection, health, and a sustainable recovery. Adding to the importance of addressing IFFs is the increased reliance on digital technologies to facilitate economic transactions during the pandemic, as digital platforms can enable money laundering, offshoring, and fraud.⁵⁰

The lack of consensus on the definition of IFF and related data has made it difficult to provide an accurate estimation of the scale of IFFs and its related economic impact. Often, only glimpses of different IFF items are available, with substantial guesswork and double counting involved. For example, money laundering is

estimated to account for 2.7 per cent of world GDP,⁵¹ and private wealth amounting to up to \$32 trillion is hidden from taxation in haven countries.⁵² In addition, global losses of governments' tax revenues due to tax evasion and avoidance activities through profit-shifting have been estimated to range between \$300 billion and \$600 billion per year.⁵³

ESCAP estimated that the median Asia-Pacific country has an annual loss of around 7 per cent of its tax revenues due to profit shifting.⁵⁴

The lack of a clear definition and the all-encompassing nature of IFFs makes the discussion on IFFs comprehensive but generic. This leads to difficulties in delivering systematic and in-depth analyses that would help pinpoint concrete policy measures. The United Nations High Level Panel on International Financial Accountability, Transparency and Integrity for Achieving the 2030 Agenda (henceforth FACTI Panel), for instance, recognizes the challenge of addressing very different but interconnected matters of tax abuse, cross-border corruption, and transnational financial crime simultaneously. It points out that a systematic, ecosystem approach is required to address "the shortcomings of the present patchwork of structures and adapt them to ever-evolving risks."⁵⁵

To address these diverse challenges, the FACTI Panel report developed 14 policy recommendations, half of which are cross-cutting. They call for developing global standards or guidelines for financial, legal, and accounting professionals; enhanced protection for individuals working to crack down on IFFs; further

⁴⁸ The OECD defines IFFs as financial flows that are generated by methods, practices, and crimes aiming to transfer financial capital out of a country in contravention of national or international law. Generally, these flows involve money laundering, bribery, tax evasion, and trade mispricing. See: OECD (2014). *Illicit Financial Flows from Developing Countries: Measuring the OECD Response*.

⁴⁹ United Nations FACTI Panel Report (2021). *Financial Integrity for Sustainable Development*.

⁵⁰ Tropina, T. (2016). *Do Digital Technologies Facilitate Illicit Financial Flows?* World Bank.

⁵¹ United Nations Office on Drugs and Crime (2011). *Estimating illicit financial flows resulting from drug trafficking and other transnational organized crimes*.

⁵² Ibid

⁵³ Crivelli, E., de Mooij, R., & Keen, M. (2015). *Base Erosion, Profit Shifting and Developing Countries*; Cobham, A., & Janský, P. (2018). *Global distribution of revenue loss from corporate tax avoidance: re-estimation and country results*. *Journal of International Development*; Garcia-Bernardo, J. and Janský, P. (2021). *Profit Shifting of Multinational Corporations Worldwide*. ICTD Working Paper.

⁵⁴ ESCAP (2018). *Financing for Development in Asia and the Pacific: Highlights in the context of the Addis Ababa Action Agenda*.

⁵⁵ United Nations FACTI Panel Report (2021). *Financial Integrity for Sustainable Development*.

engagement with civil society; enhancing information sharing for tax purposes and for combating all forms of IFFs; strengthened efforts by international organizations and governments; creating an International Compact on Implementing Financial Integrity for Sustainable Development to coordinate capacity building; creating robust and coordinated national governance mechanisms that efficiently reinforce financial integrity; and establishing an inclusive and legitimate global coordination mechanism at the United Nations Economic and Social Council (ECOSOC) to address financial integrity.

Four of the 14 policy recommendations of the FACTI Panel touch upon taxation-related aspects. These include establishing tax-transparency standards with universal participation; having all private multinational entities publish accounting and financial information on a country-by-country basis; ensuring tax fairness, including through establishing an agreement on a global minimum corporate tax and creating an impartial and fair mechanism to resolve international tax disputes; and establishing a Centre for Monitoring Taxing Rights to collect and disseminate taxation data.

The implementation of the comprehensive agenda proposed by the FACTI Panel will require both extensive technical work and political consensus at the highest level. With regards to technical work, UNODC and UNCTAD launched a conceptual framework for the statistical measurement of IFFs in October 2020,⁵⁶ and ESCAP is collaborating with these two agencies to implement a technical assistance project in selected Asia-Pacific countries to measure IFFs.⁵⁷ In addition to quantitative data collection, cross-country institutional arrangements to facilitate the systematic exchange of information between customs and tax offices can play an important role in combating IFFs through the identification of data discrepancies submitted by different stakeholders for the same transaction. In this regard, the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific

(CPTA), adopted in 2016 and entered into force in February 2021, aims to increase both the efficiency and the transparency and regulatory compliance of trade flows in the region.⁵⁸

On the political front, the G20 finance ministers endorsed an unprecedented agreement of 130 countries and jurisdictions on 1 July 2021 to introduce an international tax on multinational enterprises (MNE) and set a global minimum tax rate of 15 per cent. The agreement, which is the outcome of negotiations coordinated by the OECD over the last decade, aims to ensure that large MNEs pay tax where they operate and earn profits.⁵⁹ The next section provides details on the rationale and specifics of the proposed reforms to the global tax system.

3.1. Progress in tackling international taxation challenges

The issue of aggressive tax planning by MNEs and wealthy individuals to exploit the loopholes created by tax havens has been a key focus of major international tax reform initiatives in the recent decade. MNEs can employ a wide range of techniques to exploit gaps and mismatches in tax rules to avoid paying taxes or to artificially shift their profits from high-tax sovereign jurisdictions to low-tax ones, resulting in under-taxation. For wealthy individuals, the transnational mobility of capital has also provided them with opportunities to artificially shift their income and wealth to low-tax countries, in addition to the benefits they may already get from corporate tax planning as business owners or shareholders.

Excessive tax competition has also been broadly recognized as a problem for a long time. Although calls for avoiding a race-to-the-bottom in taxation have long been advocated by many experts and developing countries, the downward pressure on corporate tax rates continues due to the ever more intense competition for foreign investment and an inherent

⁵⁶ UNODC, UNCTAD (2020). Conceptual Framework for the Statistical Measurement of Illicit Financial Flows.

⁵⁷ UNODC (2021). Measuring illicit financial flows in Asia-Pacific.

⁵⁸ ESCAP (2020). Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific.

⁵⁹ OECD (2021). 130 countries and jurisdictions join bold new framework for international tax reform.

need of developing countries to maintain a minimal competitive edge in the global division of labour when their business environments lag far behind that of more advanced countries. Unilateral actions and temporary tax reductions introduced to shore up the economy and boost investment during difficult economic times further exacerbate tax competition.

The emergence of the digital economy, in contrast, poses a new and unprecedented challenge to the current international tax system and has shaken the foundation of some of the old principles to the core. The new business models of digitalization, ranging from web-based services and sales — such as online advertising, e-commerce and social media platforms — to remote employment and remote manufacturing, have allowed companies to be economically active in one sovereign jurisdiction without maintaining any physical presence. Such separation of economic activities from physical presence renders the requirement of “permanent establishment” as a basis of taxing rights obsolete and leaves growing shares of the economy untaxed or undertaxed.

This problem is further complicated by digital intangible assets. Streaming platforms profit from managing intellectual property rights on music and movies in complicated royalty and licensing schemes across countries. Social media platforms and search engines monetize their user data by selling it to third parties for targeted advertising. Which tax jurisdiction has the right to tax the profits from digital intangibles, if a multinational enterprise manages those assets across country borders? How can the added value of data analysis be taxed most effectively and fairly without thwarting innovation? Can the risk of multinational enterprises exploiting digital intangibles for aggressive tax planning by registering them in low-tax jurisdictions be reduced? All these questions would need to be fully addressed by systematic reforms of the current international tax system.

The 2008 global financial crisis and the subsequent fiscal distress felt across the world, including in developed regions, provided the first opportunity to rally enough global political commitment for such a change to systematically address the three-pronged issue of tax havens, tax competition, and digital economy. This global political commitment was later reflected in the Addis Tax Initiative (ATI) announced during the Third International Conference on Financing for Development in 2015, which pledges to strengthen global tax governance, fight tax avoidance and tax evasion, and reform the international tax system in the face of globalization and digitalization.

Since then, the international community has made gradual but encouraging progress on the first front towards restricting tax heavens and reducing abusive tax practices by multinational enterprises and wealthy individuals. Most notably, the two multilateral cooperation initiatives initially led by the Group of 20 and the OECD —the Base Erosion and Profit Shifting (BEPS) Project and the Global Forum on Transparency and Exchange of Information for Tax Purposes — managed to establish and propagate an improved set of rules and norms that can potentially reduce the harmful impact of tax havens and tax abuses, promote greater tax transparency and create effective policy coordination and dispute settlement mechanisms.⁶⁰ This work has been accompanied by the United Nations’ efforts to provide targeted technical and capacity support to developing countries on international taxation matters and to explore alternative policy options and solutions for developing countries.

In addition, the multilateral response to the challenges of tax competition and taxing the digital economy have accelerated significantly in recent years. The United Nations Committee of Experts on International Cooperation in Tax Matters, for instance, has conducted extensive research on taxation of cross-border income from digital services, including on aspects not covered

⁶⁰ Both of these initiatives have evolved into global tax cooperation platforms, comprising respectively 140 and 163 jurisdictional members today.

by the OECD/G20 BEPS Project such as fees for technical services, rents and royalties, indirect capital gains, tax incentives, and general anti-avoidance rules.⁶¹ The Committee is also expected to release its latest update of the United Nations Model Convention in 2021, with the addition of Article 12B, which will allow source countries to impose gross-based withholding taxes on payments for digital services.

In parallel, the OECD/G20 BEPS Inclusive Framework released their Pillar Two Blueprint on Tax Challenges Arising from Digitalisation in October 2020, which, as noted above, was later updated and adopted in July 2021 after extensive consultations.^{62 63} At the end of August 2021, 134 of the 140 members of the Inclusive Framework signed the Two-Pillar solution. It is expected that both Pillar One and Pillar Two reforms will become effective in 2023, although certain design elements are still being discussed, with a final decision expected in October 2021.⁶⁴

Pillar One focuses on the digital economy. It seeks to establish a new basis or nexus for taxing rights in the digital era and reallocate some of the taxing rights over multinational enterprises from their home countries to market jurisdictions where they have business activities and earn profits, regardless of whether they have a physical presence there. Under Pillar One, 20-30 per cent of the global profits of a multinational enterprise in excess of a 10-per cent “regular” profit (referred to as Amount A) will be shared by all the jurisdictions where the enterprise derives a substantial amount of revenue from, according to a formula. Taxing rights over the remaining part of the taxable profit (referred to as Amount B) will be allocated according to the traditional arm’s length principle, but with simplified and streamlined rules tailored to the needs of low-capacity countries.⁶⁵ Pillar One also includes mandatory and binding dispute prevention

and resolution mechanisms with regard to Amount A, in order to promote tax certainty.

Pillar Two aims to reduce tax competition and eliminate the incentives of multinational enterprises to move to low-tax jurisdictions that are not members of the agreement by establishing a minimum effective tax rate of 15 per cent on multinational enterprises worldwide. Under Pillar Two, member jurisdictions can choose to impose top-up taxes or deny deductions if the subject entity faces a low overall effective tax rate. It also allows member jurisdictions to impose a gross-based withholding tax on interest, royalties, and certain other payments. In the current setting, the new rules will only apply to multinational enterprises with a consolidated annual revenue above EUR 750 million (US \$877.3 million).

The OECD estimates that Pillar One would reallocate up to \$100 billion to market jurisdictions annually, while the 15-per cent minimum tax rate of Pillar Two would generate additional tax revenues up to \$150 billion annually.⁶⁶ Although the Two-Pillar Solution is indeed revolutionary in its recognition of taxing rights without the physical presence requirement and its prevention of a race-to-the-bottom type of tax competition, it is not without criticisms and caveats.

First and foremost, many experts believe that the Two-Pillar Blueprint is a hybrid and incomplete solution to the taxation problem with multinational enterprises (MNEs) and the digital economy. An ideal solution is to abandon the old taxation system and reallocate all MNE profits on a formula basis according to the key factors that generate profit, such as employment, sales, and assets.⁶⁷ Instead, the Two-Pillar Blueprint only reallocates a small proportion of MNEs’ “residual profits”,⁶⁸ while leaving the distribution of the majority of taxing rights to old arm’s length rules, which can

⁶¹ ESCAP working paper on taxing the digital economy in Asia-Pacific developing countries authored by Brian Arnold, forthcoming in late 2021.

⁶² The Inclusive Framework was created in 2016 as the expansion of the BEPS Project to bring in non-G20/OECD members on equal footing.

⁶³ OECD (2020). Tax Challenges Arising from Digitalisation – Report on Pillar One Blueprint ; OECD (2020). Report on Pillar Two Blueprint.

⁶⁴ OECD/G20 Inclusive Framework on BEPS (2021). Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy.

⁶⁵ The arm’s length principle requires transactions between related parties be priced as if they were between independent entities.

⁶⁶ OECD (2021). Addressing the tax challenges arising from the digitalization of the economy.

⁶⁷ ICRICT (2021). G20/OECD Inclusive Framework tax deal: a missed opportunity.

⁶⁸ Residual profit refers to any excess of the 10 per cent regular profit.

be ineffective and complex to implement, and is often disadvantageous to low-capacity countries. This dual structure adds unnecessary complexity to the solution and renders the overall benefits highly limited. The Group of 24 (G24), for example, suggests that the reallocated proportion of MNE profits should be raised to a minimum of 30-50 per cent, instead of 20-30 per cent.⁶⁹

Second, the minimum revenue requirements for MNEs to be subject to the new rules of the Two-Pillar Solution create an uneven playing field between large and small economies. Although it is reasonable for the new system to maintain some minimum revenue requirements to balance the administrative and compliance burdens of tax jurisdictions with businesses and revenue mobilization benefits,⁷⁰ many small developing countries feel that the current thresholds are set too high and only larger economies can benefit substantially from the reforms.⁷¹ The latest version of the Two-Pillar Solution has incorporated some of the demands of small developing countries, such as agreeing to a progressive reduction in the Pillar One revenue requirement — from EUR 20 billion to EUR 10 billion, or lowering the local nexus revenue obligation for small economies. Yet, to what extent these measures can help small economies benefit from participation remains to be seen.

Third, developing countries are generally concerned about the mandatory and binding dispute resolution mechanisms asserted in the current setting. Given their capacity constraints, developing countries can be inadequately represented in the dispute resolution body or inadequately supported to articulate their positions and defend their own interests in the mandatory and binding dispute resolution process. Their lack of effective participation and voice in the design and negotiation stage of the Two-Pillar Solution, despite their notional equal-footing in the BEPS Inclusive Framework, may have also enhanced their reservations.

Finally, developing countries severely affected by the tax evasion and tax base erosion problem may want to enforce a higher global minimum tax rate up to 25 per cent instead of 15 per cent.⁷² However, this is far from a universal consensus among developing countries since such a high global minimum corporate tax rate may eliminate any space for the use of tax incentives to attract foreign investment, and with it the access to knowhow and export markets.

An even broader question is how developing countries should choose between the two seemingly competitive models in addressing the taxation of the digital economy: The OECD/G20 Two-Pillar Solution or the United Nations Model Convention. These two options have some distinct features. The Two-Pillar Solution seeks to create a binding multilateral system that is applicable to all MNEs. In contrast, the new Article 12B of the UN Model Convention seeks to provide a non-binding option that can be adopted by individual countries unilaterally to specifically tax the digital services sector. The UN Model Convention is also easier to implement, and countries can retain greater sovereignty over their tax systems. Having alternative options to fall back on is always desirable, as it can also enhance the bargaining power of developing countries in future negotiations on a multilateral solution. Yet in comparison to the unilateral approach, a well-designed multilateral solution would still deliver the greatest payoff and cohesion in the international tax system. This reinvention of the international tax system to address its revealed weaknesses in today's economic and technological context will inevitably entail a constant and extremely difficult balancing act of the needs and concerns of different stakeholders. It would also involve a difficult trade-off between system elegance and efficiency, which depends on the uniformity of standards and actions, and system flexibility, which provides case-by-case policy considerations and tailored treatments to address unique demands.

⁶⁹ G24 (2021). Comments of the G24 on the Pillar 1 and Pillar 2 proposals being discussed by OECD/G20 Inclusive Framework on BEPS.

⁷⁰ Bringing small and medium-sized enterprises that engage in cross-border economic activities of limited scale into the tax system can be administratively costly and may outweigh the revenue benefits.

⁷¹ African Tax Administration Forum (ATAF) (2021). What does this mean for Africa?

⁷² This is advocated by the Independent Commission for the Reform of International Corporate Taxation (ICRICT).

For this reform to be successful, continued or strengthened efforts on three fronts need to be considered. First, it is paramount for the process to be truly inclusive, so that even the smallest and poorest countries are able to understand the implications of the reforms for their own interests, articulate their positions and concerns, and meaningfully participate in negotiations and successfully implement the reforms. The multilateral and democratic nature of both the United Nations Tax Committee and the BEPS Inclusive Framework are a good start. However, significantly more capacity building and technical advisory support will be needed to enable the smaller and poorer countries to effectively leverage the procedural “equal footing” they are entitled to.

Second, given the weaknesses of developing countries in legal, institutional and administrative capacities and their inherent socio-economic vulnerabilities, they are more exposed to possible shocks caused by the introduction of the international tax reforms and face

disadvantages in a complex, new system. Therefore, special provisions that take into account the needs and vulnerabilities of developing countries and reduce potential shocks, as well as dedicated facilities to provide easy-to-access and free-of-charge advisory and legal services need to be considered.

Finally, the reform agenda should remain open for new policy options or further improvements that could potentially make the system more effective in revenue mobilization, fairer in tax base distribution, and simpler for implementation. The deliberations by regional and sub-regional groupings as well as by independent scholars, thinktanks, and civil society groups, have been and will continue to provide valuable complementary efforts to the global initiatives led by international organizations. In this respect, the platform for broad-based exchange of ideas and consensus-building provided by the United Nations system will continue to be indispensable.

4. ALIGN PUBLIC FINANCE WITH THE SDGs AND THE PARIS AGREEMENT, WITH A FOCUS ON NATIONAL DEVELOPMENT BANKS

One of the three objectives of the United Nations Secretary General’s Strategy for Financing the 2030 Agenda is the alignment of global economic policies and financial systems with the 2030 Agenda.⁷³ Similarly, the menu of options proposed by the *Financing for Development in the Era of COVID-19 and Beyond* highlights the need to promote sustainable investments, public and private, to recover better from the pandemic through various channels.⁷⁴ One useful vehicle for this purpose is national development banks (NDBs). Due to their public mandates and varied investment portfolios, these banks can play an important role in facilitating economic recovery and supporting sustainable development.

Public development banks vary greatly in the size and scope of their work, ranging from large multilateral institutions such as the World Bank to regional, national, and local banks. As public institutions, they are motivated by the public interest and the policy goals of the funding government or governments, though they have financial and legal autonomy.⁷⁵ With global assets of \$11.3 trillion, public development banks provide around 10 per cent of total annual investments around the world.⁷⁶ In the case of national development banks, a core characteristic they share is a legal mandate by their respective national governments to undertake financing activities to achieve socio-economic objectives in the country, often with a focus on a specific sector or market segment.

⁷³ United Nations (2018). UN Secretary General’s Strategy for Financing the 2030 Agenda.

⁷⁴ United Nations (2020). Financing for Development in the Era of COVID-19 and Beyond, Menu of Options for the Consideration of Heads of State and Government.

⁷⁵ Romero, Maria Jose (2020). What are the Core Features of a Model Public Development Bank? European Network on Debt and Development.

⁷⁶ Agence Francaise de Developpement (2020). Joint Declaration by the World’s Public Development Banks.

NDBs play five crucial roles in the development process: (i) counteracting the pro-cyclical behavior of private financing; (ii) promoting innovation and structural transformation; (iii) enhancing financial inclusion; (iv) supporting the financing of infrastructure investment; and (v) supporting the provision of public goods, including to address climate change.⁷⁷ According to a 2012 global survey by the World Bank, most NDBs lend through a combination of first-tier (lending directly to end customers) and second-tier operations (lending to other private financial institutions which subsequently on-lend to end-customers), followed by development banks that lend through first-tier operations and a minority that only lend through second-tier (or wholesale) operations.⁷⁸

Most NDBs receive long-term, concessional loans from multilateral development banks, aid agencies and multilateral funds, such as the Green Climate Fund, and disburse them to end-clients, directly or indirectly through other financial institutions. As they borrow from such institutions in foreign currency and lend domestically in local currency, they absorb the currency risk associated with their borrowing activities.⁷⁹

In November 2020, the Finance in Common Summit convened by the President of France and the Secretary-General of the United Nations for the first time gathered all the public development banks in the world, both multilateral and national. In a joint declaration issued at the Summit, the world's public development banks affirmed their determination to collectively shift their strategies, investment patterns, and activities to contribute to achieving the SDGs and the Paris Agreement.⁸⁰ The declaration also pledged to increase cooperation with the public and private sectors in support of low-carbon and sustainable development.

This includes a commitment to help align financial flows with the Global Biodiversity Framework, which will be adopted at the COP15 of the UN Conference on Biological Diversity.

The declaration also pledged to strengthen and support healthcare policies and infrastructure, as well as to increase access to essential services such as education, housing, and safe water.⁸¹ Public development banks also committed to collectively contribute to the preparation of common methodologies for SDG and Paris Agreement-aligned investments, in line with previous work by OECD and UNDP on SDG-aligned finance, and by multilateral financial institutions on the Common Principles for Climate Finance Tracking.

The success of the actions arising from the Summit will depend on public development banks acting as responsible and transparent institutions. For that purpose, the declaration committed to strengthen investment governance, anti-corruption, and compliance with Anti-Money Laundering and Counter Terrorist Financing requirements. Further commitments include alignment with existing agreements and conventions, such as the G20 Principles for Quality Infrastructure Investment, UN Guiding Principles on Business and Human Rights, and the Task Force on Nature Related Financial Disclosures.⁸² To fulfill such requirements, public development banks need to have clear mandates and be well governed and well run, and their main objective should be to maximize their development impact rather than profits, though assuring at least minimal commercial returns.⁸³

⁷⁷ Griffith-Jones, S., Ocampo, J.A., Rezende F., Schclarek, A. and Brei M. (2017). The future of national development banks. CAF - Development Bank of Latin America.

⁷⁸ Luna-Martínez, José de and Vicente, Carlos Leonardo (2012). Global Survey of Development Banks. World Bank.

⁷⁹ World Bank (2018). 2017 Survey of National Development Banks.

⁸⁰ Finance in Common (2020). Joint Declaration of all Public Development Banks in the World.

⁸¹ Ibid.

⁸² Ibid.

⁸³ Griffith-Jones, S., Ocampo, J.A., Rezende, F., Schclarek A., and Brei, M. (2017). The future of national development banks. CAF - Development Bank of Latin America.

4.1. NDBs in Asia and the Pacific

In Asia and the Pacific, there are 135 public development banks, including 14 multilateral development banks, such as the World Bank and the Asian Development Bank, according to the Finance in Common database.⁸⁴ The remaining 121 are NDBs with mandates varying from expansive and generalist to a narrow focus on MSMEs, agriculture, trade, or housing. The NDBs operating in Asia and the Pacific held a total \$5.1 trillion in assets in 2018.⁸⁵ These assets are widely concentrated, with 79 per cent held by institutions in China. China Development Bank alone has nearly \$2.4 trillion in assets,⁸⁶ which represents over 46 per cent of the assets of the Asia-Pacific NDBs. On the other end of the spectrum, 82 per cent of the Asia-Pacific NDBs have assets of less than \$10 billion and 55 per cent have assets of less than \$1 billion.

With regards to mandates, 50 per cent of the Asia-Pacific NDBs have a general mandate, 36 per cent lend to micro, small and medium enterprises (MSMEs), 13 per cent provide loans to export of import operations, 12 per cent to agriculture, 7 per cent for housing, and 3 per cent for local economic activities. While a general mandate offers individual institutions the flexibility to pursue a broad development directive, when combined with weak capacity and governance, this can lead to banks pursuing unintended activities and being vulnerable to political interference.⁸⁷ An additional vulnerability, which is more likely when there is weak capacity and governance, involves the financial risks assumed by NDBs in their operations. Such risks increased during the pandemic, particularly for NDBs with a MSME mandate, as lockdowns disproportionately affected small businesses.⁸⁸

4.2. Challenges

According to a more recent global survey of 68 NDBs by the World Bank conducted in 2017, there are still many opportunities to improve the performance and governance of development banks. The survey found 30 per cent of the banks had non-performing loan (NPL) ratios of more than 10 per cent,⁸⁹ which could place a fiscal burden on their governments, while others operate under a weak governance framework that makes them vulnerable to political interference. Of the latter, the survey found that 51 per cent of the banks have boards consisting largely, or entirely of government representatives, with minimum participation from independent board members. Others do not have well-defined development mandates and compete with private financial institutions, crowding them out of their market niches.⁹⁰

An additional challenge is the lack of specialized monitoring and evaluation tools. According to the World Bank survey, most NDBs rely exclusively on financial indicators such as profitability, capital, disbursements, numbers of clients served, and NPLs to measure their performance, but these indicators do not capture the developmental impact of their lending activities.⁹¹ An effective monitoring and evaluation system is critical for NDBs, not only to make timely corrections in their lending programs, to test and assess innovations, and to evaluate results, but also to improve their accountability on their use of resources.⁹² In the case of NDBs in the least developed countries, one challenge is that they have a limited capital base and their conservative lending practices act as a constraint to achieve the SDGs.⁹³

⁸⁴ Finance in Common. Public development banks database.

⁸⁵ The sum of total assets held by the 125 single-country National Development Banks in Asia and the Pacific in 2018 was \$5.4 trillion, excluding multilateral institutions such as the World Bank and the Asian Development Bank. ESCAP calculation based on data from the Finance in Common database.

⁸⁶ ESCAP calculations based on data from the Finance in Common database.

⁸⁷ Eslava, M. and Freixas, X. (2016). Public Development Banks: Who to Target and How? Centre for Economic Policy Research.

⁸⁸ Chandrasekhar, C.P. (2020) Public Banks and India's Ineffective COVID-19 Response.

⁸⁹ World Bank (2018). 2017 Survey of National Development Banks.

⁹⁰ *Ibid.*, p. 45.

⁹¹ *Ibid.*, p. 40.

⁹² *Ibid.*, p. 39.

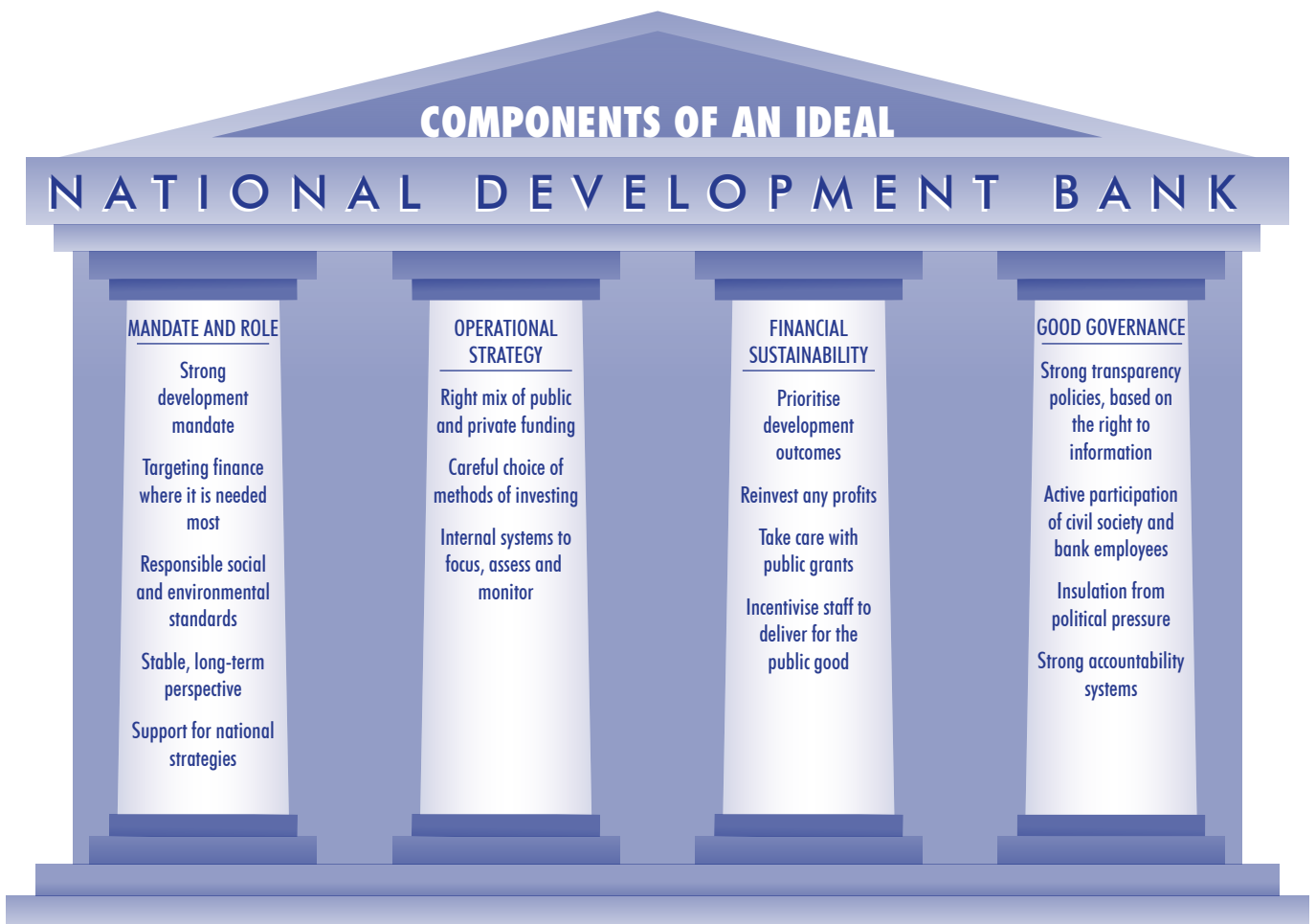
⁹³ Kotte (2018) Achieving the Sustainable Development Goals in Least Developed Countries – A Compendium of Policy Options. UNCTAD.

4.3. Recommendations

1. A first priority is to ensure the institutional effectiveness of NDBs to achieve development outcomes. This will require setting a clear mandate, improving operational strategies and governance, and ensuring financial sustainability. Figure 10 shows an example of a proposal for reform of NDBs. On the mandate, it is important that NDBs align their activities with national development plans and commitments to implement international development agendas, such as the SDGs and the Paris Agreement. In the latter case, NDBs could align their contributions with the country’s

Nationally Determined Contributions (NDCs). To achieve financial sustainability, NDBs need to implement effective work out strategies for delinquent and nonperforming loans, including through follow-up reviews to determine the specific actions to take for delinquent clients. As NDBs’ internal capacities to undertake such reviews may be limited, they may require training to enhance staff skills. Other complementary options are the establishment of debt counselling services and, where appropriate, the referral of clients to other parties for assistance.⁹⁴

Figure 10: Example of a proposal to improve the developmental effectiveness of NDBs



Source: “ESCAP based on Eurodad (2017). Public development banks: towards a better model.”

⁹⁴ See UNESCAP (2020). Micro, Small and Medium-sized Enterprises’ Access to Finance in Samoa. MSME Financing Series No. 4, pp. 24-25.

2. A very important component of a reform package for NDBs is an effective monitoring and evaluation system that captures developmental impacts and not only financial outcomes. In that regard, the World Bank proposes the following steps: (i) be clear about the mandate and results to be achieved; (ii) based on this mandate, select specific outcomes and meaningful metrics, including indicators of financial performance and indicators of social, economic, and environmental outcomes; (iii) consider establishing partnerships with relevant institutions for the collection of data; (iv) develop capacities to collect and analyse relevant data; (v) take into account data analyses for decision-making; and (vi) share data and demonstrate how the NDB made decisions to provide an example of good practices to other financial institutions.⁹⁵
3. As noted above, the declaration of the 2020 Finance in Common Summit committed to contribute to the preparation of common methodologies for SDG and Paris Agreement-aligned investments. A recent proposed framework elaborates on how public development banks could align their operations with the Paris Agreement.⁹⁶ Frameworks such as this can be discussed and adapted to national context, and they could form a basis for capacity building programs to improve the effectiveness of NDBs' lending programs for sustainable development.

CONCLUDING REMARKS

This chapter provided an overview of selected policy options to address the crisis caused by the COVID-19 pandemic. The first option discussed is to ensure equitable access to COVID-19 vaccines. The analysis shows that although the Asia-Pacific region has an average vaccination rate slightly above the world average, there is wide variation across countries. Given the potential for new and more lethal variants of the virus to emerge among populations of unvaccinated people, it is imperative to facilitate access to vaccines for countries with low inoculation rates.

The second option, to enhance liquidity and address debt vulnerabilities, provided an overview of the

external debt risks in Asia and the Pacific. The analysis classified countries into three groups: (i) countries that are eligible to the G20's Debt Service Suspension Initiative (DSSI); (ii) those that are not eligible to the DSSI and have sovereign credit ratings below investment grade; and (iii) those that are not eligible to the DSSI and have investment grade sovereign credit ratings. The rationale for this grouping is that the first group has access to the G20's Common Framework in case a debt restructuring is needed, while the third group has access to global capital markets in the event that external debts require refinancing. This leaves the second group, which does not have access to the Common Framework nor to the global capital markets due to their credit ratings, in the most vulnerable situation. In fact, three of the six countries with the highest debt services-to-exports ratios in the region belong to that group. This finding reveals a gap in the current debt architecture that needs to be addressed.

The third option, to tackle illicit financial flows, highlights the momentum achieved this year on two fronts: the recommendations of the FACTI Panel and the historic agreement to reform the global tax architecture. Notwithstanding the importance of this agreement, its implementation will require significantly more capacity building and technical advisory support to smaller and poorer nations as well as special provisions that take into account the needs and vulnerabilities of developing countries. In addition, the reform agenda should remain open for further improvements that could potentially make the system more effective in revenue mobilization, fairer in tax base distribution, and simpler for implementation.

The fourth option, to align public finance with the SDGs and the Paris Agreement, focuses on the role of national development banks, which was highlighted by the Finance in Common summit of November 2020. The section notes some challenges in areas including governance, monitoring and evaluation, and NPLs, which NDBs will need to overcome to maximize their potential to support the achievement of the SDGs and the Paris Agreement. These obstacles, however, are not insurmountable, and the section provides some recommendations to improve the effectiveness of NDBs to support sustainable development.

⁹⁵ World Bank (2018). 2017 Survey of National Development Banks.

⁹⁶ Lütkehermöller, K., i Kachi, A., Pauthier, A., and Cochran, I. (2021). Operationalization Framework on Aligning with the Paris Agreement. New Climate Institute and Institute for Climate Economics.



CHAPTER

2



LEVERAGING INNOVATIVE FINANCING INSTRUMENTS, MECHANISMS, AND POLICIES TO SUPPORT CLIMATE ACTION AND THE SDGs

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LEVERAGING INNOVATIVE FINANCING INSTRUMENTS, MECHANISMS, AND POLICIES TO SUPPORT CLIMATE ACTION AND THE SDGs¹

INTRODUCTION

The COVID-19 pandemic and the measures to contain its spread have put both health and economic systems worldwide under severe strain. The pandemic's economic consequences have been unprecedented and pose a substantial risk to the achievement of the Sustainable Development Goals. At the same time, the challenge of dealing with climate change remains daunting, and the need for climate adaptation and mitigation has never been more urgent. Indeed, climate change is one of the most challenging, complex and expensive environmental problems humanity has ever tried to address.² The latest report of the Intergovernmental Panel on Climate Change (IPCC) observed that unless there are immediate, rapid, and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach.³

Availability of adequate financial resources and their alignment with the Sustainable Development Goals and climate action are critical to address these risks and challenges. The Global Commission on Climate Adaptation, for example, highlights that an investment in climate adaptation of US \$1.8 trillion from 2020 to 2030 would garner a net benefit of \$7.1 trillion in saved resources for disaster relief and recovery.⁴ The costs of inaction are far greater, with estimates that global financial assets could be written down by as much as \$24.2 trillion under a business-as-usual emissions

path.⁵ As a result of the pandemic, many governments have experienced a considerable squeeze in their fiscal space, making it difficult to undertake the actions needed to address climate change and recover in line with the ambitions of the 2030 Agenda. While adopting measures to increase fiscal space will remain critical, these alone may not be sufficient. Innovative financing instruments, mechanisms, and policies can facilitate the channelling of finance directly to climate action and the Sustainable Development Goals.

A concerted effort in financing climate action can be traced back to 1997, at the third UNFCCC Conference of Parties (COP 3) in Kyoto, when the developed countries agreed to provide financial support to developing countries to address climate change.⁶ Twelve years later, at the 2009 Copenhagen Accord at COP 15, developed countries committed to provide scaled-up, new and additional, predictable and adequate funding to developing countries. Specifically, the developed countries committed to a goal of jointly mobilizing US \$100 billion per year by 2020 to address the needs of developing countries. This funding was to come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.⁷

¹ This chapter was prepared by Zenathan Adnin Hasannudin, Patrick Martin, and Alberto Isgut. Aoki Leng and Nan Zhang provided research assistance. Aryan Agarwal, Patchara Arunsuwannakorn, Luciana Baglioni, Clara Daniele, Alexander Kovalenko, Pranee Samchaiwattana, and Yeshay Thaye provided inputs. Comments and suggestions by Masato Abe, Erik Grigoryan and Deanna Morris are gratefully acknowledged.

² Richardson, Benjamin J. (2009). Climate Finance and Its Governance: Moving to a Low Carbon Economy through Socially Responsible Financing? *The International and Comparative Law Quarterly*.

³ IPCC (2021). Climate change widespread, rapid, and intensifying – IPCC.

⁴ GCA (2019). *Adapt Now: A Global Call for Leadership on Climate Resilience*.

⁵ Dietz, S., Bowen, A. Dixon, C., Gradwell, P. (2016). Climate value at risk of global financial assets. *Nature Climate Change*.

⁶ UNFCCC Kyoto Protocol. Article 11.

⁷ UNFCCC (2009). Copenhagen Accord.

More recently, Article 9 of the Paris Agreement at COP 21 states that developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments, and channels. In addition, it notes that the provision of such financial resources should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies and the priorities and needs of developing country Parties that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries (LDCs) and small island developing States (SIDS).⁸ COP 21 also decided to set a new climate finance goal prior to the 2025 Conference of the Parties of committing no less than US \$100 billion per year to the fight against climate change.⁹

According to the latest available data from 2018, maintained by the OECD, climate finance has increased from \$52.2 billion in 2013 to \$78.9 billion in 2018 (Figure 1). In 2018, 70 per cent of climate finance went to mitigation, 21 per cent to adaptation, and 9 per cent to cross cutting activities. Financing adaptation is particularly important for LDCs and SIDS, which contribute very little to global GHG emissions but are highly vulnerable to the effects of climate change. Recent estimates suggest that the \$100-billion target was not reached by the end of 2020.¹⁰

While governments continue to strive to meet their climate finance commitments, mobilization of financing from the private sector and through innovative financing strategies is also critical. In 2018, mobilized private climate finance amounted to \$14.6

billion, or 18.5 per cent, of the total climate finance that year. It is important to understand that this figure includes only the private sector finance mobilized by bilateral or multilateral public finance interventions, such as direct investment in companies or project finance special purpose vehicles (SPVs), guarantees, and syndicated loans.¹¹ It does not include investments by the private sector related to the environment, social and governance (ESG) standards, discussed in Chapter 1, which have expanded notably over the last decade.

This chapter describes selected innovative financial instruments, mechanisms, and policies that can help developing countries in Asia and the Pacific enhance their access to finance for climate action and the SDGs. Section 2 discusses the emerging relevance of an important category of financial instruments: thematic bonds, such as green, social, sustainability or climate bonds. The section outlines some policy actions that countries in the region should consider for their issuance. Section 3 discusses the importance of climate risk disclosure frameworks to price financial assets correctly, thus avoiding substantial risks to the stability of the global financial system and facilitating the allocation of investments towards sustainable climate solutions. Section 4 discusses the potential of debt-for-climate swaps for mobilizing climate finance and to provide debt relief to highly indebted developing countries. Section 5 provides an overview of the state of climate finance policies in selected Asia-Pacific countries based on results from a new climate finance policy index developed by ESCAP. Section 6 provides concluding remarks.

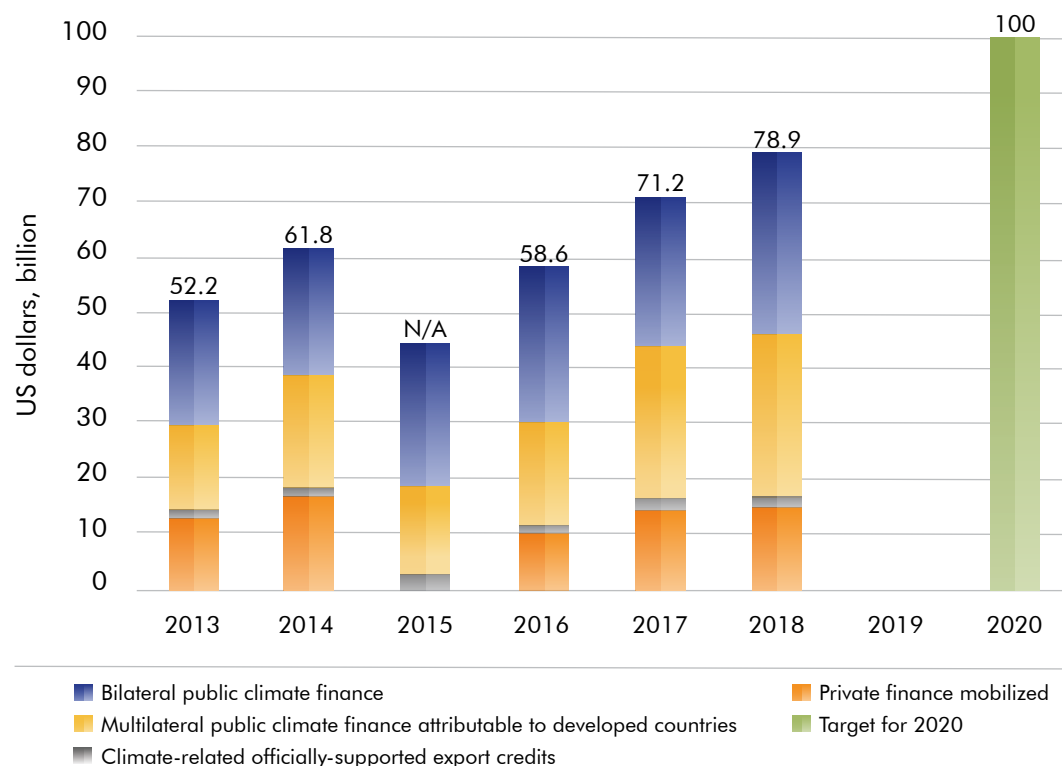
⁸ UNFCCC (2018). Climate Finance in the negotiations.

⁹ Ibid.

¹⁰ The Independent Expert Group on Climate Finance (2020). Delivering on the \$100 Billion Climate Finance Commitment and Transforming Climate Finance.

¹¹ In 2018 these instruments accounted for 33 per cent, 31 per cent, and 19 per cent, respectively, of the private finance mobilized by developed countries' governments. The rest is accounted for by credit lines, investments in funds, and simple co-financing arrangements. See OECD (2020). Climate Finance Provided and Mobilized in Developed Countries.

Figure 1: Climate Finance for Developing Countries



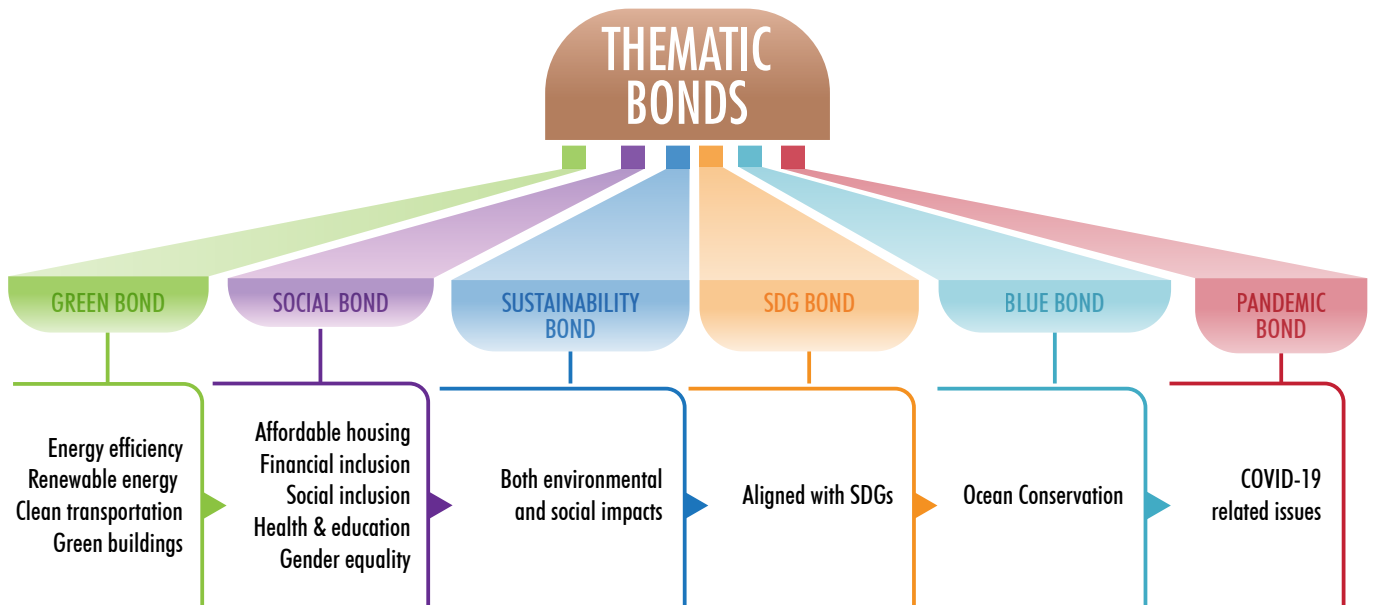
Source: ESCAP based on data from OECD (2020). Climate Finance Provided and Mobilized in Developed Countries.

1. THEMATIC BONDS: INNOVATIVE FINANCING INSTRUMENTS FOR CLIMATE ACTION AND SDGs

Thematic bonds are debt securities issued by governments and private sector entities on the condition that the funds obtained are used to finance projects with a clear social and environmental impact. Thematic bonds are akin to common fixed-income bonds, offering predictable returns for investors in the form of a fixed coupon in exchange for medium to long-term funding. There are different types of bonds available under the banner of thematic bonds (Figure 2). These include, but are not limited to, green bonds,

social bonds, sustainability bonds, and SDG bonds. Within these broad categories there are sub-categories. For example, green bonds include climate bonds linked to climate mitigation (i.e. projects in solar and wind technologies that reduce GHG emissions) and climate adaptation (i.e. infrastructure projects to protect against flooding). At the same time, other types of thematic bonds have emerged in response to new challenges, such as pandemic bonds in response to the COVID-19 pandemic.

Figure 2: Different types of Thematic bonds

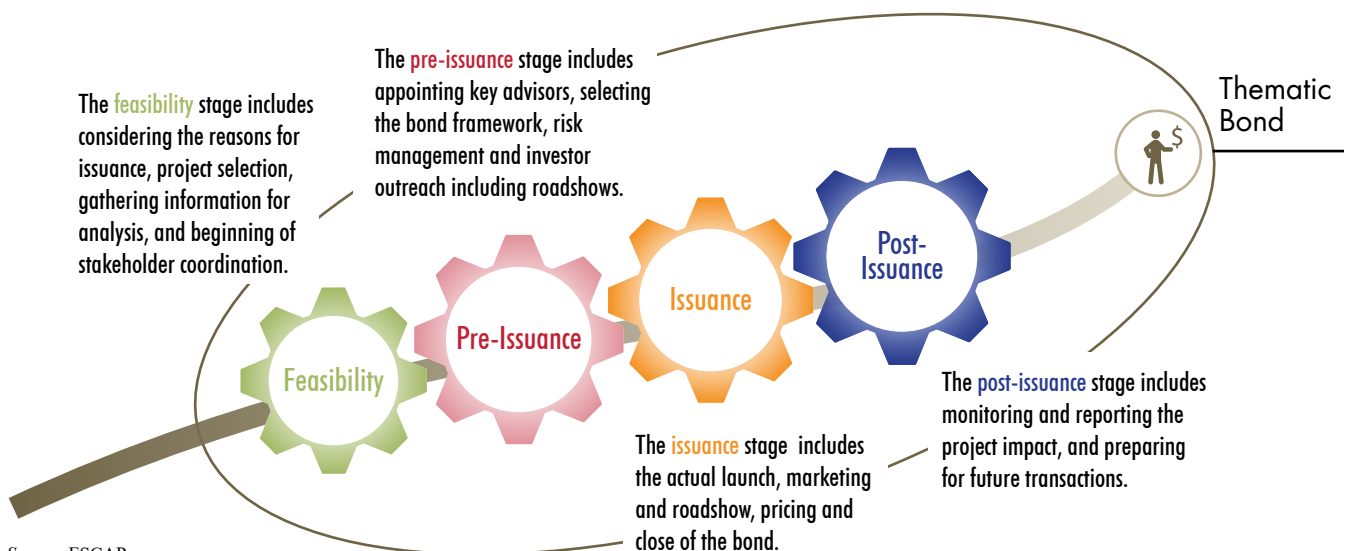


Source: ESCAP.

The issuers of thematic bonds should keep several aspects in view. For example, what does the bond seek to achieve, and what types of projects or activities will be financed? While the details of each bond issue differ, each issue will follow a familiar structure. It is also essential to understand that a themed bond is, first and foremost, a fixed-income security. As such, it may not be suitable for high-risk projects that will not provide

steady cash-flows during the term period. However, it may be possible for some projects to address this issue with credit enhancement and guarantees to increase repayment certainty. Once the issuer has identified a need to borrow and decided to do so by issuing the bonds, several steps should be undertaken before the launch, as described in Figure 3.¹²

Figure 3: Key Stages in Issuing Thematic Bonds



Source: ESCAP.

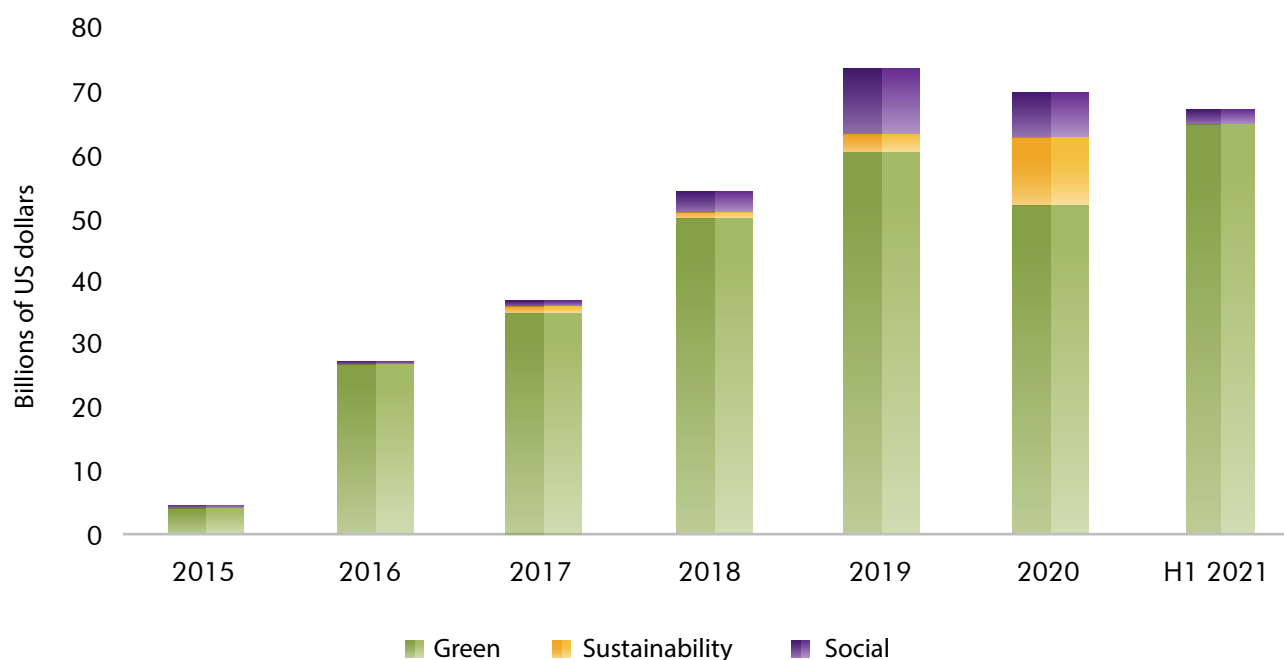
¹² ESCAP (Forthcoming 2021). Issuing Thematic Bonds in Asia and the Pacific: A Guide for developing countries in Asia and the Pacific.

The global fixed income market for thematic bonds is expanding rapidly, with the signing of the Paris Agreement in 2015 triggering considerable interest in global institutional investors in green and climate bonds. Supportive institutions and normative frameworks are being refined to provide reassurances to investors that the bond proceeds will finance the intended projects, thus reducing the risk of greenwashing.¹³ Globally, green and other thematic bonds still represent just 2 per cent of the total bond market, leaving room for exponential growth for these bonds and for developing countries to meet their financial needs to achieve climate objectives and the SDGs. More recently, thematic bonds have also been used by governments to finance fiscal policy measures to address the COVID-19 pandemic. The main characteristic of thematic bonds is that they require disclosure and reporting on the use of the issuer's proceeds. This connects investors such

as pension funds, banks, and insurance companies with investments and projects that are expected to have a positive environmental and/or social impact.

Because global and domestic investors are increasingly factoring in climate change risks and the SDGs into their investment decision-making, many projects and borrowers in the Asia-Pacific region can potentially benefit from issuing thematic bonds to finance sustainable development and reduce GHG emissions. Indeed, the Asia-Pacific region has seen a substantial rise in the issuance of thematic bonds in recent years. As shown in Figure 4, the issuance of thematic bonds has increased from only \$4.3 billion in 2015 to \$69.7 billion by the end of 2020. The figure also shows a very strong momentum in the issuance of green bonds in the first half of 2021.

Figure 4: Thematic bonds issuance in Asia and the Pacific



Source: ESCAP based on data from Climate Bond Initiative (CBI) and International Capital Market Association (ICMA).

¹³ Greenwashing occurs when an enterprise dedicates more money to marketing themselves as environmentally friendly than on reducing the harmful impacts of their production on nature.

1.1. Examples of thematic bond issuances in Asia and the Pacific

In recent years, many developing countries in Asia and the Pacific have issued thematic bonds, especially green bonds, including during the COVID-19 pandemic. Examples include the following:

- In October 2017, Fiji was the first developing country to issue a sovereign green bond. The issuance was based on the International Capital Markets Association's (ICMA) Green Bond Principles and raised \$46.5 million. It has been estimated to benefit more than 129,000 Fijians through the generation of 1.39 million KWh of renewable energy and an annual reduction of 2,000 tonnes in CO₂ emissions.¹⁴
- In February 2018, Indonesia issued the first sovereign green Sukuk (Islamic Bond), which raised \$1.25 billion in 2018. It was the world's first sovereign bond exclusively aimed to fund climate change in a manner in which financing was compliant with Islamic law. This first green sukuk was followed by two annual issuances in 2019 and 2020. The country has raised a total of \$3.24 billion, which includes \$2.75 billion raised through global issuances and IDR 6.86 trillion (\$490 million) raised through retail (domestic) issuances.¹⁵
- In August 2020, Thailand issued a three-tranche sustainability bond for a total of THB 50 billion (\$1.6 billion) to finance, among other projects, the construction of the Orange Line of the Bangkok Mass Rapid Transit (MRT), health expenditures, and a support program for small and medium-sized enterprises affected by the COVID-19 pandemic.
- In April 2021, the government of Malaysia issued the world's first sovereign USD-denominated Sustainability Sukuk with a size of \$800 million

and a 10-year maturity.¹⁶ The offering was oversubscribed by 6.4 times and resulted in an upsizing of the offering.

Examples of thematic bonds by non-sovereign issuers in the region include a \$1.9-billion bond issued by the China Development Bank to finance infrastructure linked to COVID-19 responses. Similarly, financial institutions, such as Kookmin Bank of the Republic of Korea¹⁷ and the Bank of the Philippine Islands,¹⁸ have issued \$500 million and \$300 million, respectively, to support micro, small, and medium-sized enterprises hit by the pandemic. More recently, Surbana Jurong, a global consulting firm specializing in sustainable infrastructure, issued the first sustainability-linked bond in Southeast Asia.¹⁹

While the list of green bond issuers in Asia and the Pacific is expanding, technical capacities across countries remain uneven and the full potential of this market remains untapped. Figure 5 shows data by country and subregion on issuances of green bonds in Asia and the Pacific in 2020. Almost 80 per cent of bonds issued that year originated in East and North-East Asia, with China, Japan, and the Republic of Korea in the lead. South-East Asia is the second most active subregion of Asia in green bonds issuance, where countries such as Indonesia, Thailand, and Singapore issued green bonds to finance green infrastructure projects. In other subregions, green bond issuance is limited to a few countries such as India and Pakistan in South and South-West Asia, and Kazakhstan and Russian Federation in North and Central Asia. In the Pacific, only Australia and New Zealand issued green bonds in 2020, although there is a potential for Pacific Small Islands Developing States to follow the footsteps of Fiji in tapping into the green bond market.

¹⁴ Emose, Griffon (2021). Sustainability Bond for the Pacific Feasibility Study. United Nations ESCAP.

¹⁵ Ministry of Finance, Republic of Indonesia (2021). Green Sukuk: Allocation and Impact Report.

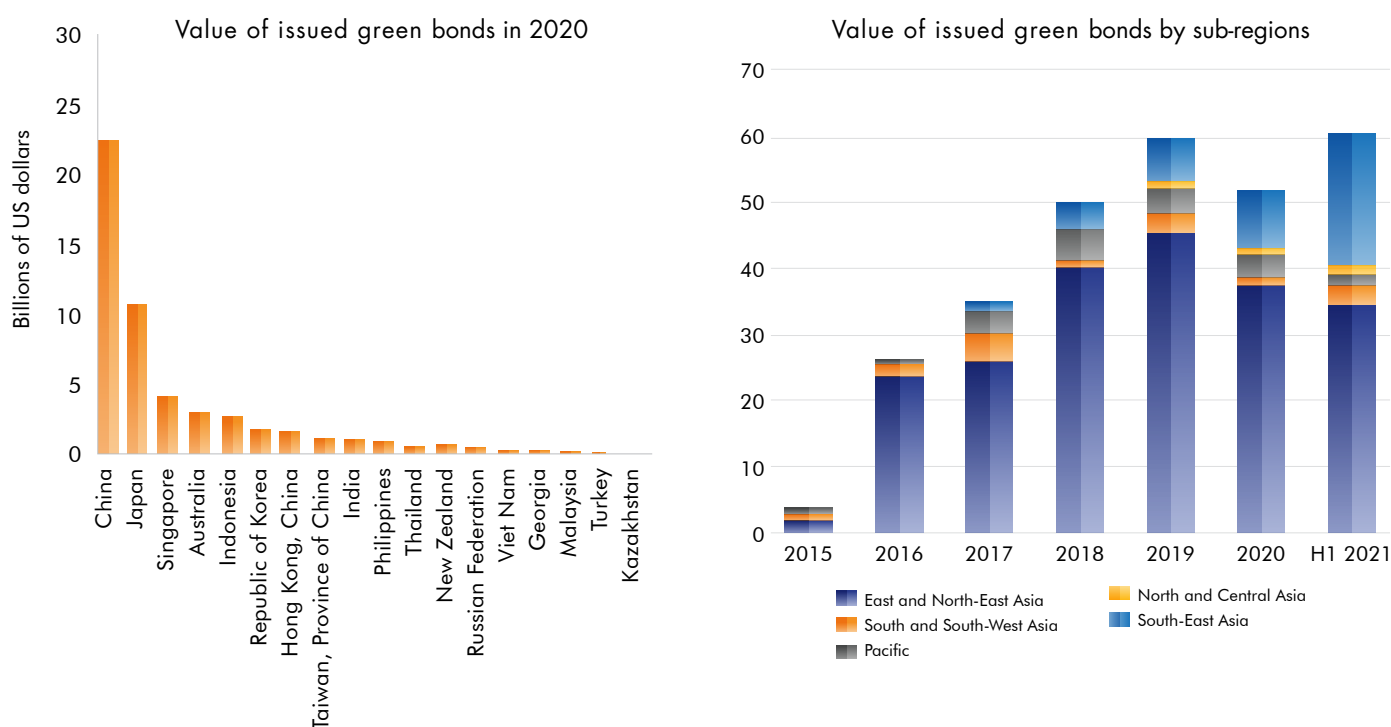
¹⁶ Ministry of Finance Malaysia (2021). World's First Sovereign U.S. Dollar Sustainability Sukuk Issuance by The Government of Malaysia.

¹⁷ The Asset (2020). Kookmin Bank Prices Covid-19 Response Sustainability Bond.

¹⁸ Philstar Global (2019). BPI pioneers Asean green bond issuance.

¹⁹ Surbana Jurong (2021) Surbana Jurong Group, Southeast Asia's first public sustainability-linked bond, is more than six times oversubscribed.

Figure 5: Green Bonds issuance in Asia and the Pacific



Source: ESCAP based on data from Climate Bond Initiative (CBI) and International Capital Market Association (ICMA).

1.2. Need for developing policy frameworks and institutional capacities

The lack of a clear framework and associated policies for green bond issuance remains a significant barrier to issuing green and other thematic bonds in some countries.²⁰ Although there is growing regional awareness about the role and importance of thematic bonds as innovative financing instruments for climate resilience and sustainable development, such recognition is not uniform across the region. In addition, there is a need for unified ESG ratings to facilitate asset allocation decisions,²¹ as well as for compliance and enforcement of green taxonomies to prevent greenwashing.

The institutional capacities of different countries and stakeholders vary considerably and are context-specific. Whereas some countries are well on their way to establishing a robust policy framework to support the issuance of thematic bonds, many others are unaware of the specificities of green bond markets despite

having experience in issuing bonds. The development of strong institutional capacities is a precondition to taking advantage of the emerging thematic bond markets and gaining direct access to international markets and investors.

To facilitate the issuance of thematic bonds in the region and contribute to building back better in the era of COVID-19 and beyond, four key actions are recommended.

a) Adopt recognized international standards or frameworks

The choice of an appropriate standard or framework for a particular bond issue is essential for its successful issuance, as it signals to the market what the bond issuer is trying to achieve and allows investors to identify the type of bonds that are being offered.

²⁰ Banga, Josué (2019). The green bond market: a potential source of climate finance for developing countries. *Journal of Sustainable Finance & Investment*.

²¹ Florian B., Koelbel, Julian F., and Rigobon R. (2020). Aggregate Confusion: The Divergence of ESG Ratings; Yoshino, N. and Yuyama, T. (2021). ESG/Green Investment and Allocation of Portfolio Assets. *Studies of Applied Economics*.

While some countries such as China,²² Japan,²³ and India²⁴ have their own national green bond guidelines, for most countries it is more practical to align their issuances with recognized global standards, which would make their offers easier to understand by global investors. Global standards not only indicate acceptable uses of the proceeds from bond issuances but also provide guidelines for reporting and verification. Recognized global standards for thematic bonds issuances include those established by the International Capital Markets Association (ICMA) and the Climate Bond Initiative (CBI). In Asia and the Pacific, the Association of Southeast Asian Nations (ASEAN) has also issued regional green bond standards, based on the ICMA Green Bond Principles.

ICMA's thematic bonds principles and CBI's climate bond standards

In 2014 a consortium of banks established voluntary best practice guidelines for the issuance of green bonds called the Green Bond Principles (GBP). Their subsequent development and monitoring were later transferred to the Climate Bond Initiative, an independent secretariat hosted by ICMA.²⁵ The GBP are voluntary guidelines that set out a transparent process for disclosure and information to investors, underwriters, placement agents and other stakeholders in four areas: (1) use of proceeds; (2) project evaluation and selection; (3) management of proceeds; and (4) reporting. They stipulate that the proceeds of the bond should be utilized to finance eligible green projects with clear environmental benefits. Although the GBP do not provide a detailed taxonomy of the projects eligible for financing through green bonds, they list project categories that are acceptable. These include: renewable energy, energy efficiency, pollution prevention and control, environmentally sustainable management of living natural resources and land use, terrestrial and aquatic biodiversity

conservation, clean transportation, sustainable water and wastewater management, climate change adaptation, eco-efficient and/or circular economy products, technologies and processes, and green buildings.²⁶

The GBP also require the issuer to communicate clearly to investors how the projects to be financed will be selected and evaluated and stipulate that the proceeds from the bond be financially segregated and preferably subject to external audits. Finally, the GBP recommend that annual reports to bondholders include a list of the projects financed with brief descriptions of them and their expected impact.

Other frameworks administered by the ICMA include the Social Bond Principles, the Sustainability Bond Principles, and the Sustainability-linked Bond Principles.²⁷ The Social bond principles also list several acceptable project areas: affordable basic infrastructure, such as clean water and sanitation, access to essential services, such as health and education, affordable housing, employment generation, food security and sustainable food systems, and socio-economic advancement and empowerment. The Sustainability-Linked Bond Principles support projects that can finance the general business activities of the issuer, but they must demonstrate a commitment to sustainability and propose to achieve some Sustainability Performance Targets (SPTs) with Key Performance Indicators (KPIs). These instruments can be useful to finance “brown” activities looking to transition towards a low carbon economy.

In addition to ICMA's bond principles, the Climate Bonds Standard by the CBI provides another recognized global standard, in this case for the issuance of climate bonds. The Climate Bonds Standard builds on the GBP but includes more stringent definitions of the eligible projects.

²² Climate Bond Initiative (2021). The Green Bond Endorsed Project Catalogue 2021 Edition.

²³ Ministry of the Environment of Japan (2020). Green Bond Guidelines, Green Loan and Sustainability Linked Green Loan Guidelines 2020.

²⁴ Securities and Exchange Board of India (2017). Disclosure Requirements for Issuance and Listing of Green Debt Securities.

²⁵ Climate Bond Initiative. Green Bond Principles & Climate Bonds Standard.

²⁶ International Capital Markets Association (2021). Green Bond Principles.

²⁷ International Capital Markets Association. Sustainable Finance.

These definitions provide guidance on specific technologies for green projects to ensure consistency with the 2° Celsius warming limit outlined by the Paris Agreement.

It is important to recognize that global standards may not be suitable for domestic or regional applications in all cases and that they, therefore, may require adjustments. For example, the Association of Southeast Asian Nations Green Bond Standards builds on the Green Bond Principles of ICMA but are tailored to issuers with geographies and economies connected to the ASEAN region.

In a nutshell, the adoption of clear and recognized bond standards are essential to enable financial institutions and markets to effectively engage with potential investors in Asia and the Pacific and develop products and services that can help finance climate action and Sustainable Development Goals. Nevertheless, countries considering the issuance of thematic bonds need to have clarity on their target market before adopting a specific bond standard. While domestic and/or regional standards may not be suitable to raise financing from international investors, who may not be familiar with domestic regulations, an internationally-recognised framework may not be suitable for a bond targeted to domestic investors.

Taxonomies

An established taxonomy is a complementary element to facilitate investors' understanding of the use of proceeds from a bond issuance. For instance, the EU taxonomy is a classification system that establishes a list of environmentally sustainable economic activities, and provides companies, investors, and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. The objective of the EU taxonomy is to create security for investors, prevent private investors from greenwashing, help companies to become more climate-friendly, mitigate market fragmentation,

and help shift investments where they are most needed.²⁸ Taxonomies complement standards of thematic bond issuances. For instance, the 2021 edition of the Green Bond Principles encourages issuers to provide information, if relevant, on the degree of alignment of projects with official taxonomies.

Similarly, CBI's Climate Bonds Taxonomy identifies the assets and projects needed to deliver a low carbon economy and gives GHG emissions screening criteria consistent with the 2-degree global warming target set by the Paris Agreement.²⁹ This taxonomy is used to evaluate whether projects financed by a bond are compliant with the Climate Bonds Standard. The ASEAN taxonomy, announced at the ASEAN Finance Ministers and Central Bank Governors' Meeting of 30 March 2021, is expected to provide an overarching guide for ASEAN Member States, complementing their respective national sustainability initiatives.³⁰

b) Identify eligible projects

As discussed, thematic bonds can be used to finance a range of initiatives under the condition that the proceeds are exclusively used for eligible environmental or social projects (or both in the case of sustainable bonds). For example, given the GBP recognition of renewable energy as an eligible green project category, a project on the production and transmission of solar energy could be financed through the issuance of green bonds. The critical feature of green bonds is that the proceeds go toward environmental projects or assets. The "greenness" of the issuing entity, for example, does not matter; it is about the individual assets and projects, and ensuring that the project contributes to environmental goals. In the case of sustainability-linked bonds, although there is no requirement on the use of proceeds, issuers are committed to meet specific targets and progress must be measurable through selected key performance indicators.

²⁸ European Commission (2021). EU taxonomy for sustainable activities: What the EU is doing to create an EU-wide classification system for sustainable activities..

²⁹ Climate Bond Initiative. Climate Bonds Taxonomy.

³⁰ ASEAN (2021). Joint Statement of the 7th ASEAN Finance Ministers and Central Bank Governors' Meeting.

In any case, dispensing thematic bonds would require issuing countries to be able to select, design, and implement bankable green or social or sustainability-linked projects. It is important to understand that bankability in the context of such projects goes beyond financial returns to encompass socioeconomic metrics such as improvements in the resilience of communities.³¹ However, the capacities needed in developing countries to develop pipelines of suitable bankable projects are often lacking. Given the importance of the underlying projects for a successful issuance of thematic bonds, governments wishing to access this kind of financing should develop a strategy to establish a portfolio of bankable green and social projects.

c) *Establish a methodology to verify the environmental and social impact of the projects*

All green bonds policy frameworks require disclosure and reporting on the use of proceeds by the issuer, and all funds are tracked to provide investors with confirmation that the funds are used for the purpose promised by the issuer and are expected to deliver a positive environmental impact. For these purposes, third-party verification plays an increasingly essential role in reducing informational asymmetries and avoiding suspicions of greenwashing.³² Some bond standards, such as the Climate Bond Standards by the Climate Bond Initiative, provide a list of certified verifier organizations, which provide more certainty to investors about the quality of the projects that are to be financed by bonds issued under those standards.

d) *Strengthen regional cooperation*

Regional cooperation should be strengthened to support the technical and institutional capacity of developing countries to issue thematic bonds and develop the needed legal and policy frameworks. Despite the ongoing growth of the green bond

market, taking advantage of their issuance may not be straightforward for all countries in the region. For example, countries that lack experience in dealing with capital markets and fixed income securities are also likely to lack the institutional capacity to develop the needed legal and policy frameworks in the short term. The financial and policy framework include assessments of the yield curve for the government bonds determined by the market, the choice of issuing bonds in local currency to develop the domestic capital market, and measures to promote the primary and secondary markets. Furthermore, countries also need to assess their fiscal capacity to service new bond debt, especially in the aftermath of the COVID-19 pandemic, which reduced fiscal space considerably in many developing countries. All these aspects require considerable technical capacity that may not be available to a lot of countries in the region.

The international community can support developing countries to enhance their capacities to issue themed bonds in various ways. The UN system can provide technical assistance through feasibility studies and policy advice.³³ Multilateral development banks could provide local green bond issuers with a partial guarantee.³⁴ As an example, the Asian Development Bank (ADB) provided a project loan in pesos and credit enhancement in the form of a partial credit guarantee in pesos to support the Philippines' first peso-denominated green project bond.³⁵ Guarantees are an instrument of blended finance, which is discussed briefly in Box 1.

³¹ Charlotte Ellis and Kamlesh Pillay (2017). Understanding 'bankability' and unlocking climate finance for climate compatible development. Climate and Development Knowledge Network (CDKN).

³² Maria Bachelet and Leonardo Becchetti (2019). The Green Bonds Premium Puzzle: The Role of Issuer Characteristics and Third-Party Verification. Sustainability.

³³ ESCAP worked together with Bhutan's UN Country Team between 2017 and 2020 to provide technical assistance and capacity building to the government of Bhutan to set up the infrastructure for bond market development. Bhutan launched its first sovereign bond in September 2020. See ESCAP (2020). Bhutan issues first sovereign bond to meet increasing fiscal financing needs in fighting COVID-19. Building on this experience, ESCAP also provides technical assistance to other member States on the issuance and listing of green bonds.

³⁴ Banga, Josué (2019). The green bond market: a potential source of climate finance for developing countries. Journal of Sustainable Finance & Investment.

³⁵ ADB Philippines. Tiwi and MakBan Geothermal Power Green Bonds Project.

Box 1: Blended finance

Blended finance is a financial structuring approach that leverages catalytic capital,^a usually from public and philanthropic sources, to encourage private sector investment to achieve climate or social objectives. The number and size of blended finance transactions in the region have been increasing, and this trend is expected to continue in the coming years.^b Blended finance is used in different ways to make projects viable by reducing risks and increasing returns for investors. Blended finance is in many cases provided in the form of a credit guarantee or as subordinated debt that reduces risks for domestic senior lenders by lowering the number of senior claims on assets. Other blended finance instruments include insurance and junior equity — all of which reduce risks to attract private investment.

Source: ESCAP.

^a Catalytic capital is defined as capital that accepts disproportionate risk or concessionary returns to generate positive impact and enable third-party investment that otherwise would not be possible. See Harvey Koh (2020). What Investors Need to Know to Embrace Catalytic Capital. Stanford Social Innovation Review.

^b Convergence (2020).

^c Jessop, Simon, and Sinead Cruise (2020). BlackRock, Partners Eye Initial \$500 Million for Climate Fund. Reuters.

Philanthropic capital can also be used in a variety of ways in blended finance structures such as funding design-stage grants and investing in first-loss tranches, which can mobilize commercial capital. For example, in 2018, BlackRock the world's largest asset manager, partnered with governments and philanthropic foundations to create the Climate Finance Partnership with the aim to target climate-aligned infrastructure investment in emerging markets. Under the fund, \$100 million in concessional funding was provided by philanthropic foundations and governments to act as a first-loss tranche to attract an additional \$400 million of institutional investor capital.^c

2. CLIMATE RISK DISCLOSURE AND REPORTING: INFORMATION FOR BETTER AND GREENER DECISION MAKING

The Asia Pacific region is experiencing an increasing number of climate related risks and disasters, which can adversely impact the financial stability and thus optimal mobilization of finance in Asia Pacific economies. A robust financial system, supported by regulations and strategies that consider climate related risks, can contribute to a resilient and green economy transition that is consistent with the ambitions of the 2030 Agenda and Paris Agreement. Policies and regulations that enable the flow of finance to climate action play a vital role in such a transition. They aim at incentivising investors and businesses to factor in climate risks in their decision-making, directing financial flows to climate objectives and promoting financial stability and best practices in the management of systemic climate-related risks.

Climate-related risks broadly include physical and transition risks, including policy and regulatory developments, technology and stakeholder preference shifts, and liability exposures.³⁶ Physical risks include the impact on the value of assets that arise from climate and weather-related events, such as floods and storms that damage property. Transition risks arise as a result of adjustments to a low carbon economy. They may include the risk of technologies becoming obsolete due to regulatory changes and disruptions to existing business models caused by climate-related innovations. These risks are not trivial. It has been estimated that a temperature rise of 2°C will translate into a loss of up to \$20 trillion in stranded assets across the energy, industrial and building sectors globally by 2050.³⁷ Therefore, it is crucial that investments that are

³⁶ Jacqueline Peel, Sarah Barker, and Ellie Mulholland (2020). Australia's international climate change commitments –Associated accounting assumptions and auditing of climate risk disclosures. CPA Australia.

³⁷ International Renewable Energy Agency, IEA (2017). Perspectives for the Energy Transition.

locked-in high-carbon emission pathways and can lead to stranded assets are disclosed so that investors and markets can accurately factor in these risks.

In this vein, and as a result of increasing interest by investors, climate risks and environmental, social, and governance (ESG) themes are gradually becoming more influential in the decisions of asset managers, banks, insurance companies, and financial regulators globally (See Box 2). ESG includes environmental considerations such as GHG emissions and biodiversity

loss, social issues such as labour practices, and governance matters such as staff diversity and inclusion. Failure to effectively incorporate climate risks and ESG considerations can result in a variety of consequences for businesses and investors, including financial losses (e.g., reduction in asset values), legal implications (e.g., fines for non-compliance with environmental laws), and reputational impacts (e.g., loss of sales due to public criticism of the company). As the importance of these issues and risks have grown, so too has the focus on climate risk disclosure and reporting.

Box 2: A brief introduction to ESG investments

ESG investments, which are sometimes referred to as sustainable investments, originated in an initiative of former UN Secretary-General Kofi Annan in 2004 under the auspices of the UN Global Compact. It is estimated that the global ESG market has reached \$35.3 trillion in assets under management (AUM) by 2020.^a ESG investing can be defined as an investment approach “that seeks to incorporate environmental, social and governance factors into asset allocation and risk decisions with the goal of generating sustainable, long-term financial returns.”^b As such, ESG investing lies in between commercial investment, which focuses only on maximizing financial returns, and impact investment and venture philanthropy, which aim at attaining measurable environmental and/or social returns.^c

The notable expansion of ESG investments in the recent decade can be attributed to a variety of factors, ranging from an increased societal awareness about the dramatic risks posed by climate change to interest by corporations and financial institutions in moving away from a focus on short-term risks and returns to consider the sustainability of investment performance over the

long-term.^d Investors use various strategies to undertake ESG investments. These include excluding certain sectors, companies or practices in investment funds or portfolios or the systematic and explicit inclusion by investment managers of environmental, social and governance factors into financial analyses, known as ESG integration. Another popular strategy is the use of shareholder power to influence corporate behaviour.

Although the overwhelming majority of ESG investments are taking place in developed countries, developing countries are starting to tap into this huge market as well. However, ESG investments are not exempt from challenges. A survey of ESG investments conducted by the CFA Institute and the United Nations Principles of Responsible Investment found that the main barriers to ESG integration are a limited understanding of ESG issues and a lack of comparable ESG data.^e In addition, two recent reports have found a poor degree of alignment between ESG and climate-themed equity funds and the objectives of the Paris Agreement,^f and no significant relationship between ESG scores and CO2 emissions growth.^g

Source: ESCAP.

^a Global Sustainable Investment Alliance (2021). Global Sustainable Investment Review 2020.

^b Boffo, R., and R. Patalano (2020). ESG Investing: Practices, Progress and Challenges. OECD Paris.

^c The difference between impact investment and venture philanthropy is that the former expects a minimum financial return at or below market rates. See Boffo, R., and R. Patalano (2020).

^d Boffo, R., and R. Patalano (2020).

^e Matt Orsagh, James Allen et al. (2019). ESG Integration in Asia Pacific: Markets, Practices and data. CFA Institute, UN Principle of Responsible Initiative.

^f InfluenceMap (2021). Climate Funds: Are They Paris Aligned?

^g Elmall, Dalya, Kirti, D., Igan, Deniz O. (2021). Limits to Private Climate Change Mitigation. IMF Working Paper.

2.1. Climate risk reporting frameworks and standards

Financial market efficiency relies on timely and accurate information regarding risk exposures. In September 2015, at the time when the international community was negotiating the Paris Agreement, the G20 requested the Financial Stability Board (FSB) to examine the impact of climate risks on the financial sector. While at that time most G20 countries mandated companies with public debt or equity to disclose material risks – including climate-related risks – in their financial reports, there was no standardized framework to make such disclosures comparable across jurisdictions.³⁸ Common problems identified by the FSB included lack of information on the financial implications of climate change on businesses, inconsistencies in disclosure practices, and non-comparable reporting. Such inadequate information about risks could cause markets to misprice assets and misallocate capital, which could then lead to abrupt corrections and financial instability.³⁹ This diagnosis led to the establishment of the Task Force on Climate-related Financial Disclosures (TCFD) in December 2015. Its mandate is to design a set of recommendations for consistent disclosures to help financial market participants understand their climate-related risks.⁴⁰

Effective climate risk disclosures enable stakeholders to understand both the potential upside opportunities and the downside risks, while facilitating capital to be better allocated to fund sustainable climate solutions. They also enable companies to demonstrate that they are responsive to stakeholders' concerns.⁴¹ Given their importance, former Governor of the Bank of England, Mark Carney, advocated for them to become comprehensive and for investing for a net-zero world to “go mainstream.”⁴² For this to happen, financial markets, regulators, and civil society must increasingly demand from investors the transparent disclosure of climate risks and information about how they are being managed.

Several other frameworks also acknowledge the value and importance of climate risk disclosure and, more broadly, ESG principles. Established to improve the quality and quantity of climate-related disclosures, each of them recognises the need for consistency across relevant industries and sectors to allow investors to assess individual businesses' and aggregate risks (Table 1). They also emphasize the need for transparency and clarity in reporting to ensure that users trust the information disclosed.

Table 1: Climate risk reporting frameworks and standards

<p>Task Force on Climate-related Financial Disclosures (TCFD)</p>	<p>The Financial Stability Board established the TCFD in 2015 to ensure that investors and lenders have sufficient information about how climate change could affect their actual and proposed investments. The TCFD's climate-related financial disclosures are structured around four thematic areas: Governance, Strategy, Risk Management, and Metrics and Targets.</p>
<p>Global Reporting Initiative (GRI)</p>	<p>GRI is an international independent standards organization founded in 1997 whose Sustainability Reporting Standards are the most widely used standards for reporting on ESG impacts globally and have been developed through multi-stakeholder contributions. GRI Standards support both comprehensive reports and selected disclosures. GRI provides disclosure standards for companies to communicate their impact on critical sustainability issues, including climate change, human rights, and social and governance matters.</p>

³⁸ Task Force on Climate-related Financial Disclosures (2017). Final Report.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Bergman, M., Karp, Brad S., Rosen, Richard, Weiss, Paul (2020). ESG Disclosures: Frameworks and Standards Developed by Intergovernmental and Non-Governmental Organizations. Harvard Law School.

⁴² Carney, Mark (2020). Building A Private Finance System For Net Zero, Priorities for private finance for COP26.

Principles for Responsible Investment (PRI)	The PRI were developed by an international group of institutional investors reflecting the increasing relevance of environmental, social, and corporate governance issues to investment practices and was convened by the United Nations Secretary-General Kofi Annan in 2006. The six principles include incorporating ESG issues into investment analysis and decision-making processes and the disclosure of ESG issues, including climate risks by the entities in which members invest.
Principles for Responsible Banking (PRB)	The Principles for Responsible Banking launched in 2019 are a framework for ensuring that signatory banks' strategy and practice align with the Sustainable Development Goals and the Paris Climate Agreement. The principles result from a partnership between the United Nations Environment Programme Finance Initiative (UNEPFI) and banks across the world. The Principles provide the framework to embed sustainability at the strategic, portfolio and transactional levels of signatory banks and across all business areas.
Value Reporting Foundation (VRF)	In June 2021, in response to calls for greater simplification, the International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB) merged into the VRF. Although the VRF now operates with a unified strategy, it maintains established tools including the Integrated Reporting Framework and SASB Standards, in use in more than 70 countries worldwide.
Climate Disclosure Standards Board (CDSB)	CDSB is an international consortium of business and environmental NGOs that aims to align mainstream corporate reporting models and account for natural capital within financial reporting. The CDSB's Framework sets out an approach for reporting environmental and climate change information in mainstream reports, such as annual reports.
Carbon Disclosure Project (CDP)	The CDP is a not-for-profit organisation that examines the environmental disclosure system of companies, cities and states to measure and manage their risks and opportunities on climate change for investors and other stakeholders.
Network of Central Banks and Supervisors for Greening the Financial System (NGFS)	The NGFS, launched in late 2017, includes central banks and international institutions worldwide, including 13 Asia-Pacific central banks. The NGFS was established to provide technical analysis of climate finance risks and consists of three workstreams: supervision, macro-financial, and mainstreaming green finance to foster a greener financial system globally.

Source: ESCAP.

As outlined in Table 1, many different organisations, frameworks and standards have emerged in response to the need to integrate climate-related risks in decision making. These reflect the diverse needs of various stakeholders that increasingly need to engage with climate risks and the need to incorporate these prospects into decision making and financial reporting. For example, the NGFS reflects the growing demand of central banks to analyse climate risks better. Likewise, the PRI and PRB reflect the ever-increasing importance

of managing climate risks within the investment and banking communities.

Businesses also need to engage with climate risks systematically to engage with customers and report the impact of these to investors and other stakeholders. Currently, Global Reporting Initiative (GRI) standards are commonly used for sustainability reporting, with more than 80 per cent of the world's largest corporations

using GRI standards to report.⁴³ The Sustainability Accounting Standards Board Foundation (SASB), now managed by the Value Reporting Foundation (VRF) and the Carbon Disclosure Project (CDP), are also widely used by businesses globally. However, depending on their intended target audience and needs, businesses could use any of these standards to provide information to different stakeholders such as investors, regulators, and civil society.

The growing number of reporting standards on climate risks and ESG disclosures is challenging for businesses and financial institutions,⁴⁴ and the PRI 2019 annual report has pointed out that the market is calling for greater coherence and consistency between frameworks.⁴⁵ The problem of the diversity of standards is also common in Asia and the Pacific. A 2019 survey of financial institutions, mostly local commercial banks, in 11 developing countries in Asia and the Pacific conducted by ESCAP found a great variety of frameworks to manage ESG risks in the region.⁴⁶

The survey covered 159 financial institutions; 85 from LDCs, mostly from Bangladesh, Cambodia, Myanmar and Nepal, and 79 from other developing countries, mainly Indonesia, Pakistan, the Philippines and Sri Lanka. Among the LDCs, one in three respondents reported that they have not used any standards, and among all respondents, national standards were more prevalent than international standards.

In response to the rising demand for clarity in the sustainability reporting ecosystem, the International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB) announced their intention to merge into the Value

Reporting Foundation.⁴⁷ While climate risk and ESG disclosures are still primarily a voluntary undertaking, that may well be changing as regulators shift to more prescriptive measures. For example, financial market participants in Europe now have sustainability-related reporting obligations from March 2021.⁴⁸ The regulation is intended to harmonize disclosures provided by financial market participants and financial advisers. In addition to voluntary reporting frameworks and new regulations, several different stakeholders, including asset owners, asset managers, and environmental NGOs, are increasing pressure on companies to embrace climate risk and ESG disclosures more robustly. For instance, members of the UN-convened Net-Zero Asset-Owner Alliance, which own close to \$7 trillion in AUM, are urging investors, companies, and governments to adopt concrete and actionable carbon-reduction strategies to achieve net-zero emissions by 2050.⁴⁹

2.2. Next steps

As we move closer to the United Nations Climate Change Conference (COP26) in Glasgow later in 2021, the UK government has indicated that it will make climate risk disclosure a focus of its presidency of COP 26.⁵⁰ This responds to increasing calls for the private sector to refine and implement climate risk disclosure.⁵¹ There is increasing agreement on the need to align disclosure standards with the TCFD framework, as well as a willingness to establish pathways to mandatory disclosure.⁵² Harmonizing disclosure standards and frameworks with international standards and best practices is necessary to ensure that the information is consistent and comparable across different jurisdictions.

⁴³ UNESCAP (2020). Economic and Social Survey of Asia and the Pacific: Towards Sustainable Economies.

⁴⁴ Bergman, Mark S., Karp, Brad S., Rosen, Richard A., Weiss, Paul (2020). ESG Disclosures: Frameworks and Standards Developed by Intergovernmental and Non-Governmental Organizations.

⁴⁵ Principles for Responsible Investment (2019). Annual Report 2019

⁴⁶ Martin, P. et al. (2021). Factors Affecting the Environmental and Social Risk Management of Financial Institutions in Selected Asia-Pacific Developing Countries. United Nations ESCAP.

⁴⁷ SASB (2020). Promoting Clarity and Compatibility in the Sustainability Landscape: GRI and SASB announce collaboration.

⁴⁸ The EU's sustainable finance action plan of 2018 aimed to make ESG investing more transparent and improve disclosure. That led to the Sustainable Finance Disclosure Regulation, or SFDR, which came into force in March 2021 but will continue to be rolled out over the next two years. See S&P Global (2021). New EU ESG disclosure rules to recast sustainable investment landscape.

⁴⁹ Rachel Fixsen (2021). Institutional investors say 6th IPCC report must spur more action. Investments and Pensions Europe (IPE).

⁵⁰ Carney, M. (2020). Building A Private Finance System For Net Zero, Priorities for private finance for COP26.

⁵¹ Ibid.

⁵² Ibid. See also UNESCAP (2020). Economic and Social Survey of Asia and the Pacific: Towards Sustainable Economies.

Given these proposals at the global level, governments and regulators in Asia and the Pacific must be prepared to issue guidance for financial institutions and corporates on climate-related reporting and implement climate disclosure policies consistent with the TCFD where possible. There are positive signs that this is starting to happen. For example, Indonesia's Financial Services Authority (OJK) is increasingly aligning its regulations and guidelines to international standards and well-recognized frameworks like the TCFD.⁵³ In addition, the Government of New Zealand introduced legislation in April 2021 to make climate-related disclosures, aligned with the recommendations of the TCFD, mandatory for public-listed companies and large insurers, banks, non-bank deposit takers, and investment managers. If the legislation is enacted into law, they will be mandated to disclose their climate-related risks starting in 2023, making New Zealand the first country in the world to have mandated reporting on climate risks.⁵⁴

The TCFD encourages financial institutions to develop processes for identifying and managing climate-related risks and explaining how these relate to their overall risk management framework (see Table 2). It also recommends the disclosure of corporates' GHG emissions and a description of the metrics used to identify risks and opportunities. The TCFD also encourages scenario-planning so that organizations can consider risks based on different global temperature outcomes over different periods, including the 2°C increase and less than 2°C increase scenarios envisaged in the Paris Agreement. Significantly, the TCFD recommends that companies include climate disclosure in their financial reporting where possible. Although the TCFD provides high-level guidance and adopts a forward-looking, scenario-based approach to climate risk disclosure, it leaves it to the various industries to develop and pilot the specific techniques and methods best suited to their needs and exposures.

Table 2: TCFD thematic areas

GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRICS AND TARGETS
Disclose to organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
RECOMMENDED DISCLOSURES			
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

⁵³ CDP. Sustainability risks for Southeast Asian Banks: Implications for policymakers.

⁵⁴ New Zealand, Ministry of Business, Innovation and Employment (2021). Mandatory climate-related disclosures.

b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Source: TCFD 2017a, p.14.

Although some countries already have regulatory requirements to disclose climate-related risks, often through environmental disclosure requirements, it is proposed that these disclosures are expanded. To this end, governments could establish technical working groups to examine how to align national climate risk disclosure standards with international best practices, particularly the TCFD. The working groups would engage key stakeholders, including financial institutions, investors, and regulators, in an active dialogue around climate risk, ESG disclosure and reporting, and international disclosure frameworks to learn from the best practices. At a subsequent stage, countries can require all major institutions including listed companies and institutional investors to report their exposure to climate-related risks consistently with the TCFD framework.

Governments and regulators in the region need to foster policies that strengthen the integration of climate risks and ESG in decision making and embrace these international standards in their climate finance policy

frameworks. Requiring the disclosure and reporting of accurate information on climate risks and ESG will help attract investments for a smooth transition to a low-carbon, climate-resilient economy. However, all stakeholders have an essential role to play in improving the quality and quantity of climate risk and ESG disclosures. Regulators can issue guidance for financial institutions and corporates on climate-related reporting; central banks can capture climate risks in financial stability and market operations where applicable; stock exchanges can develop climate risk disclosure compliant listing guidance; auditors can establish systems to ensure that climate-related risks are considered during audits of company reports; and, last but not least, companies and investors can commit to disclosing and reporting climate risk.

3. DEBT-FOR-CLIMATE SWAPS AS A TOOL TO SUPPORT THE IMPLEMENTATION OF THE PARIS AGREEMENT

Under the Paris Agreement, developed and developing countries have committed to do their part to ensure that the warming of the planet is capped at well below 2 °C above pre- industrial levels and are pursuing efforts to limit the temperature increase to 1.5 °C above pre- industrial levels. These commitments are reflected in their Nationally Determined Contributions (NDCs), which countries are required to submit every five years.⁵⁵ However, with COVID-19 recovery efforts demanding a massive increase in government expenditure amid slowing economic activity, sovereign debt levels have risen sharply in 2020 and are likely to remain high in the near future. Currently, 11 Asia-Pacific countries are at high risk of debt distress, seven of which are Pacific Small Island Developing States: Afghanistan, Kiribati, Lao PDR, Maldives, Marshall Islands, Micronesia (Federated States of), Papua New Guinea, Samoa, Tajikistan, Tonga and Tuvalu.⁵⁶ Furthermore, as countries prioritize addressing health concerns and a speedy economic recovery, relatively less attention is being paid to tackling climate change.

Given this situation, there has been increasing support for debt-for-climate swaps as a solution to simultaneously reduce sovereign debt burdens and increase financing to scale up investments in climate mitigation and adaptation projects. Earlier this year, the Managing Director of the IMF announced that the IMF and the World Bank are working together to develop an “organizing framework” for connecting debt relief to countries’ plans for investing in green, resilient and inclusive development.⁵⁷ Their joint proposal for green debt swaps will be announced during COP 26.

A debt-for-climate swap can be defined as an agreement between a debtor country and its creditors, where

the former’s debt stock is reduced in exchange for a verifiable commitment to invest in climate mitigation or adaptation projects. The idea of providing debt relief in exchange for actions to protect the environment has its origin in the debt-for-nature swaps first proposed by Thomas Lovejoy, the vice president of the World Wildlife Fund, in 1984.⁵⁸

There are two kinds of debt-for-nature swaps. The first one is a bilateral swap, in which a creditor country agrees to cancel a debtor country’s deficit in exchange for the debtor’s commitments to spend the newly available funds on approved projects. If more than one creditor country participates in the deal, it is called a multilateral swap. The second type, which has been the most common, is third-party swaps. In this case a third party, typically a non-governmental organization (NGO), intermediates between the debtor and its creditors to facilitate the deal. Specifically, the third party purchases a developing country’s debt in the secondary market at a discounted value and then transfers it back to the debtor in exchange for the government’s commitment to mobilize funds for specific projects.⁵⁹ An example is the Seychelles’ debt-for-nature swap concluded in 2018 with support from The Nature Conservancy, a US-based environmental group.⁶⁰ In the late 1980s and 1990s, when debts of developing countries with private banks traded in secondary markets at steep discounts, third parties facilitated debt-for-nature swaps by buying the arrears from commercial banks in secondary markets. The case of Bolivia in 1987 is an example of an early debt-for-nature swap.⁶¹ In all cases, the swaps allowed debtors to fund committed projects in domestic currency, thus alleviating foreign exchange constraints.

⁵⁵ NDC Registry.

⁵⁶ World Bank (2021). COVID 19: Debt Service Suspension Initiative.

⁵⁷ Andrea Shalal (2021). IMF, World Bank to unveil ‘green debt swaps’ option by November, Georgieva says. Reuters.

⁵⁸ Brijesh Thapa (1998). Debt-for-nature swaps: an overview. *International Journal of Sustainable Development & World Ecology*.

⁵⁹ UNESCAP (2021). Chapter 4: Fiscal and Financing Policies for Building Forward Better. *Economic and Social Survey of Asia and the Pacific*.

⁶⁰ Commonwealth Small States Centre of Excellence (2019). Case Study: Debt-for-Nature Finance Swap.

⁶¹ In this case, the environmental NGO Conservation International bought \$650,000 of Bolivian sovereign debt for \$100,000 in exchange for the government providing legal protection to the Beni Biosphere Reserve plus \$250,000 for management support within the reserve. See Philip Shabecoff (1987). Bolivia to Protect Lands in Swap for Lower Debt. *New York Times*.

While debt swaps can be a win-win arrangement by simultaneously providing debt relief and financing for valuable projects, the experience of debt-for-nature swaps highlights some challenges. First, their transaction costs tend to be rather high because of the involvement of multiple stakeholders, which make their planning, negotiation, and implementation complex and time consuming. For instance, the Seychelles swap mentioned above took four years to reach consensus. Second, debtors are required to make a long-term fiscal commitment to fund the agreed-upon projects, which can be challenging in cases of fiscal crises or changes in the political regime. Third, as the government will fund the agreed projects in local currency, there is a risk that inflation or currency devaluation can erode the real value of the committed funding. Fourth, the size of debt swaps has been in many cases too small to have a real impact in providing debt relief.⁶²

An additional challenge pertaining to debt-for-nature swaps is that conservation projects may create conflicts in local communities as well as land ownership issues. One example is Bolivia's 1987 debt-for-nature swap mentioned above, where the indigenous peoples of the area that the government agreed to protect were never consulted about the implications of the swap agreement. The swap unilaterally titled the land to be protected by the government of Bolivia, de facto terminating a process initiated before the swap to allow the indigenous peoples to obtain land tenure in the reserve areas. In addition, the agreement imposed restrictions on traditional activities of the indigenous peoples considered to be detrimental to forest preservation, and it granted logging concessions to operate in the area surrounding the reserve, further fuelling conflicts between the indigenous people and logging and ranching interests that would continue into the 1990s.⁶³

3.1. Designing an effective debt-for-climate swap mechanism

Understanding these challenges and avoiding the errors

of past debt-for-nature swaps is essential to design an effective debt-for-climate swap mechanism. To this end, the following recommendations could be considered:

a) *Conduct consultations with all relevant stakeholders to understand their views and seek to ensure a strong political support for a debt swap deal*

Relevant stakeholders include at a minimum the debtor country government, its creditors, and other domestic stakeholders who need to agree to the projects to be implemented under the swap arrangement. Development partners, such as donors, multilateral development banks, and non-governmental organizations are most likely to be part of the group of stakeholders if they agree to provide support, such as grants or technical assistance, for the implementation of projects. Developed countries included in Annex II of the Paris Agreement could also be stakeholders in the debt swap because supporting the agreement through grants would count towards meeting their commitment to contribute \$100 billion per year in climate finance. As discussed below, the Paris Agreement provides an appropriate framework for debt-for-climate.

b) *Design a debt-for-climate swap term sheet to reduce transaction costs and negotiation times*

Debt-for-climate swaps agreements are complex because of the different stakeholders involved and the array of issues that need to be considered, ranging from the amount and profile of public debt to be swapped, the beneficiary of climate mitigation and adaptation projects, co-financing sources, the debt discount or conversion rate, the schedule of government payments to an entity to be responsible for project implementation, and recourse measures in case of nonfulfillment of an obligation under the agreement.

⁶² UNESCAP (2021). Economic and Social Survey of Asia and the Pacific. Towards post-COVID-19 resilient economies.

⁶³ Knicley, Jared E. (2012). Debt, nature, and indigenous rights: Twenty-five years of debt-for-nature evolution. Harvard Environmental Law Review.

To facilitate the negotiation process among the various stakeholders, a debt-for-climate swap term sheet could be designed to encapsulate the main terms and conditions of the swap deal. Similar to a term sheet for an investment deal, a debt-for-climate swap term sheet would reduce the likelihood of misunderstandings or unnecessary disputes among the stakeholders that could delay agreement on the deal. The term sheet would also serve as a template and basis for a more detailed, legally binding document. Once the parties involved reach an agreement on the details laid out in the term sheet, a binding agreement or contract that conforms to the term sheet details would be drawn up.⁶⁴

The debt-for-climate swap term sheet could take advantage of existing taxonomies and standards, as well as environmental and social safeguards within the broader UNFCCC and climate finance space. For example, the term sheet could require that the projects to be funded by the swap comply with international standards, such as the CBI Climate Bonds Taxonomy or the EU taxonomy for sustainable activities. Likewise, the term sheet could require that any conservation project to be funded by the swap comply with the UNFCCC REDD+ Safeguards, to protect local communities and biodiversity.⁶⁵

To be sure, a term sheet will only provide an initial basis for the negotiation of a debt-for-climate swap deal. Given the bespoke nature of debt-for-climate swaps, the term sheet will need to be tailored to each country's specific context and circumstances. Nonetheless, the existence of a standardized term sheet is likely to facilitate and speed up the negotiations of a

final deal by making clear to all stakeholders the key parameters to be agreed upon.

c) Adopt an effective monitoring, reporting, and verification (MRV) framework

While debt relief is an important objective of a debt-for-climate swap deal for the borrower country, effectively implementing climate mitigation and adaptation projects using savings in debt services payments is of paramount importance for creditors and development partners contributing additional funding. For that purpose, an effective monitoring, reporting and verification (MRV) framework needs to be a key component of implementation in the swap deal. The MRV framework could be based on Sustainability Performance Targets (SPTs) and Key Performance Indicators (KPIs), similar to those in the ICMA Sustainability-Linked Bond Principles, and appropriately adapted to the projects to be funded by the swap.⁶⁶ In case of conservation projects to be funded by the swap, the performance targets and KPIs should include consideration of issues such as land rights and natural resources management. All in all, a robust MRV will help create confidence among key stakeholders about the effectiveness of the debt-for climate swap to reach the desired climate objectives. As such, it can also contribute to speeding up the negotiation process.

d) Ensure national ownership

The projects to be funded by debt-for-climate swaps should be selected by the debtor countries based on their NDCs and other national planning documents.⁶⁷ While it is true that the swaps will allow debtor governments to obtain relief from their public external debt

⁶⁴ Akhilesh, G. (2020). Term Sheet. Investopedia.

⁶⁵ For details on the UNFCCC REDD+ Safeguards, see ClientEarth (2013). A Guide to Understanding and Implementing the UNFCCC REDD+ Safeguards: A Review of Relevant International Law.

⁶⁶ The use of KPIs to evaluate sustainable strategies has been discussed mostly in the business context. See Ivo Hristov and Antonio Chirico (2019). The Role of Sustainability Key Performance Indicators (KPIs) in Implementing Sustainable Strategies. Sustainability, MDPI.

⁶⁷ Ulrich Volz, Shamshad Akhtar, Kevin P. Gallagher, Stephany Griffith-Jones, Jörg Haas, and Moritz Kraemer (2021). Debt Relief for a Green and Inclusive Recovery: Securing Private-Sector Participation and Creating Policy Space for Sustainable Development. .

obligations, the deal will commit them to provide agreed-upon funding to the projects decided in the swap. To ensure compliance by debtors on this funding, the projects should be in the national interest and should be agreed by all the domestic stakeholders, including indigenous and local communities, through a broad consultation process. An important consideration by national governments considering a debt-for-climate swap deal is that the scale of it is enough to justify their negotiation and implementation costs. The scale of the deals should also be enough to provide sufficient deficit to ensure the sustainability of their external debts.

e) *Additionality*

The funding provided by the debt swaps should be in addition to the creditor governments' ODA commitments. While it is beneficial to have a vision for concrete climate objectives and measures, and the institutional capacity to deliver them, payments originating from the swap should not be used to legitimize cutbacks in government spending in other areas.

3.2. A schematic view of debt-for-climate swaps

In sum, debt-for-climate swaps offer the opportunity to bring together two critical pillars of the Paris Agreement – the NDCs and the climate finance commitments by developed countries – while at the same time providing debt relief to developing countries. To make the most of this opportunity, political support from key stakeholders is needed so that the swaps can be applied to countries at high risk of external debt distress. By providing a dedicated source of funding to the NDCs, especially conditional contributions,⁶⁸ it will create incentives for developing countries to increase their level of ambition and to undertake critical investments

in climate adaptation and decarbonization. The scheme also provides developed countries an outlet to fulfill their commitments under the UNFCCC.

Figure 6 presents a schematic view of debt-for-climate swaps that links the two pillars of the Paris Agreement. It considers the case where the creditor is a developed country that partially or fully cancels a debt of a developing country. According to Article 11.5 of the UNFCCC, “the developed country Parties may also provide and developing country Parties avail themselves of financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels.”⁶⁹ If a developed country is a bilateral creditor of a developing country, a partial or full cancellation of such debt would constitute a bilateral transfer of resources to the developing country debtor. As such, it would count towards the global commitment of developed countries to provide \$100 billion per year in climate finance.

The rest of the scheme is similar to conventional debt-for-nature swaps with the exception that the debtor allocates part of the savings in debt services exclusively to climate mitigation and adaptation activities specified in its NDC. As in conventional debt-for-nature swaps, the debtor's funds go to a trust fund or special purpose vehicle (SPV) that manages the funds and implements the projects selected by the debtor, while a reporting and verification framework ensures the effective and efficient use of the funds. In addition, the trust fund or SPV can invite entities such as development partners, multilateral development banks, climate funds, or foundations to provide additional capital.

As an example, suppose that the debtor has a debt of \$100 million and pays an annual interest of 10 per cent. If the creditor partially cancels 50

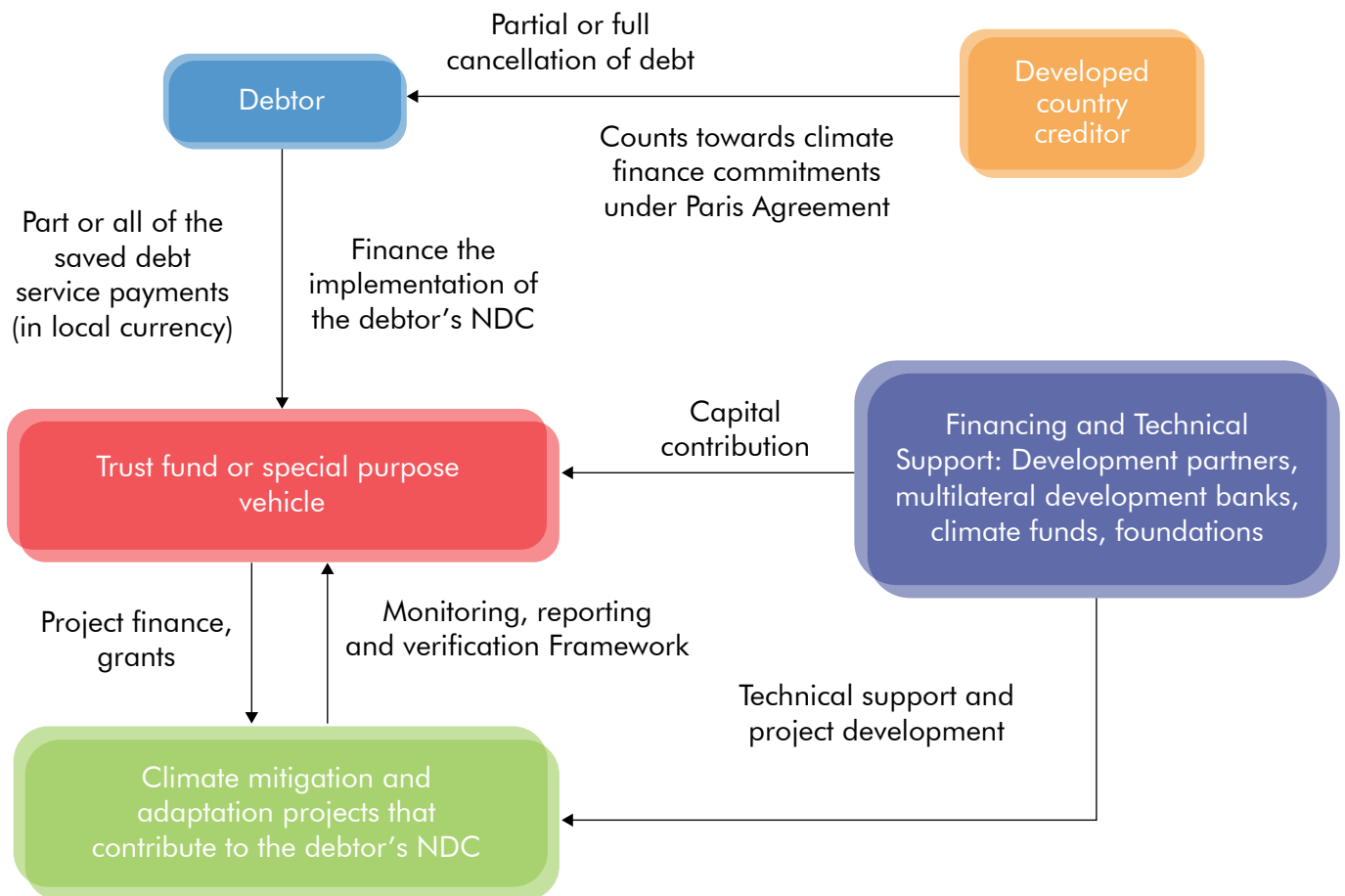
⁶⁸ Within the context of developing countries' NDCs, a conditional contribution is part of an NDC that countries would undertake if international means of support are provided, or other conditions are met. See European Capacity Building Initiative (ECBI) (2018). Pocket Guide to NDCs under the UNFCCC.

⁶⁹ United Nations (1992). United Nations Framework Convention on Climate Change.

per cent of the debt, \$50 million would count as climate finance provided by the creditor under the Paris Agreement. Suppose also that the debtor is required by the agreement to contribute 50 per cent of the saved interest to the trust fund or SPV. In this case, the debtor would reduce its payments to the creditor to \$5 million per year and contribute \$2.5 million per year to climate mitigation and adaptation projects that would allow it to implement its NDC. As is standard in debt-for-nature swaps, the contribution would

be in domestic currency. The amounts of debt cancellation and contributions of the debtor to the trust fund or SPV, as well as the projects to be funded, capital and technical assistance contributions by other parties and the monitoring, reporting and verification framework are all subject to negotiation. As suggested above, a debt-for-climate swap term sheet could facilitate the negotiations by providing clear guidance of all the elements to be considered in a final deal.

Figure 6: A debt-for-climate swap scheme to support the implementation of the Paris Agreement

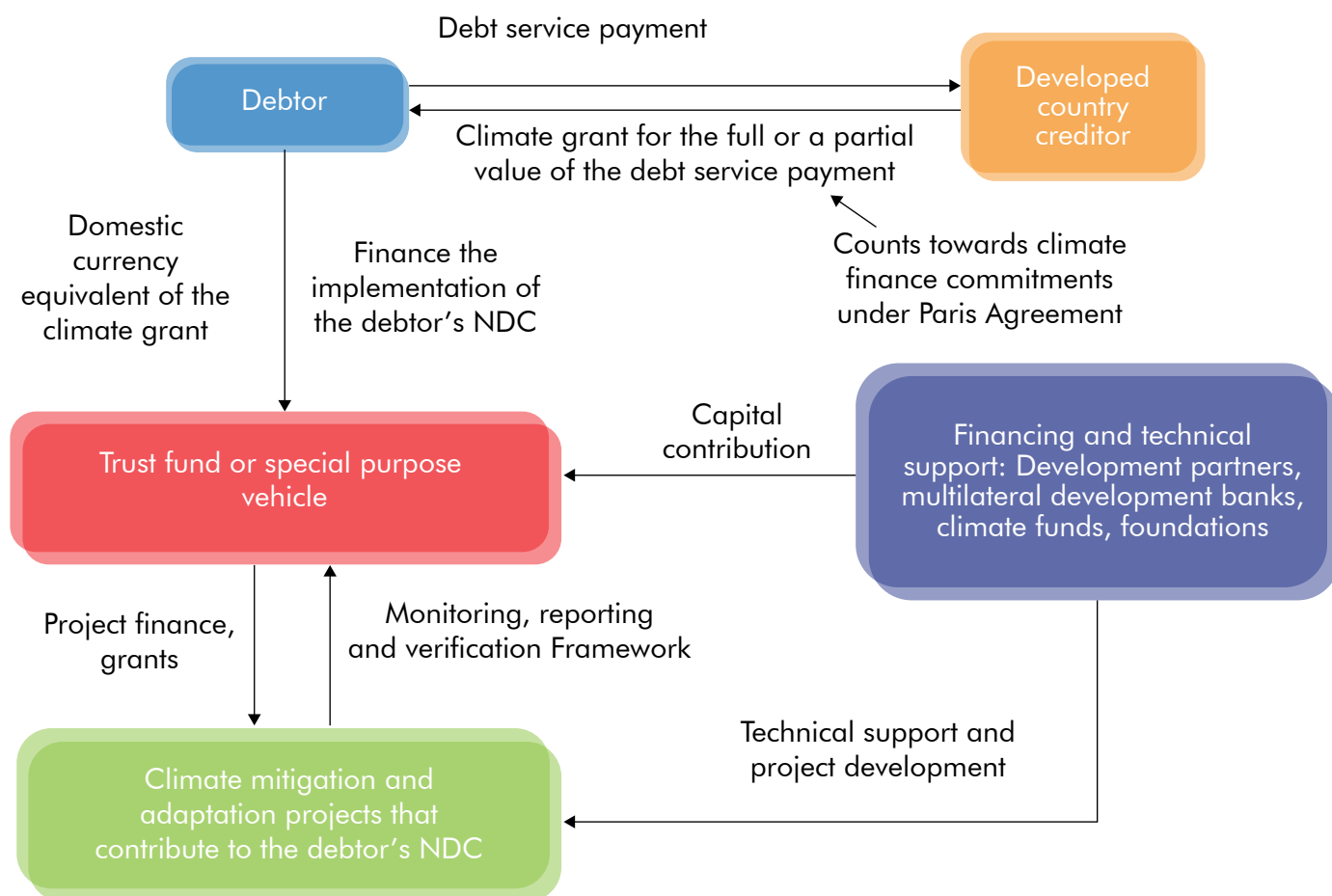


Source: ESCAP.

The scheme in Figure 6 could apply to a developing country creditor as well. The provision of climate finance by countries other than the developed countries is possible according to Article 9.2 of the Paris Agreement.⁷⁰ The UNFCCC does not specify how developing countries can contribute to climate finance, as Article 11.5 applies only to developed countries. However, a number of developing countries have contributed climate finance voluntarily through the Green Climate Fund and the Global Environmental Facility, and in 2015 China pledged \$3.1 billion to a “South-South Climate Fund” that will support climate action in other developing countries.⁷¹ Given this precedent, it would be possible for a developing country to contribute climate finance voluntarily by supporting another developing country through a debt-for-climate swap.

The scheme described in Figure 6, whether the creditor is a developed country or a developing country, could be problematic. This is because a debt write-off would be accounted in the creditor country as a government expense, and a large write-off could be undesirable because of its impact on the creditor country’s fiscal balance. An alternative arrangement would be a “debt service-for-climate grant swap,” by which the creditor provides a climate grant for the full or a partial value of the debt service payment. The debtor, in turn, commits to allocate the full or a partial value of the equivalent to the grant in local currency to the trust fund or SVP.⁷² See Figure 7.

Figure 7: A debt services-for-climate grants swap scheme



Source: ESCAP.

⁷⁰ Article 9.2 states that “other Parties are encouraged to provide or continue to provide such support voluntarily.” United Nations (2015). Paris Agreement.

⁷¹ Ferreira, Patrícia Galvão (2018). Climate Finance and Transparency in the Paris Agreement: Key Current and Emerging Legal Issues. Centre for International Governance Innovation (CIGI) Papers.

⁷² See discussion by Thomas Melonio, Executive Director for Research and Innovation, French Development Agency in UNDESA (2021). 2021 HLPF Side Event: Financing a sustainable recovery: The role of debt-relief instruments. Summary of the side event.

Assuming, as in the example provided above, that the debtor has a debt of \$100 million and pays an annual interest of 10 per cent, in a debt services-for-climate grant swap, the creditor returns to the debtor 50 per cent of the interest payment as a climate grant, and the debtor commits to allocate the full amount of the grant in local currency to the trust fund. The advantages of this arrangement for the debtor are three: (i) reduced pressure on the exchange rate, as the contribution to the trust fund is in domestic currency, (ii) a stable source of funding for climate action projects, and (iii) multiplier effects, as the funded projects will generate employment and other benefits to the local economy. From the creditor's point of view, the contribution to climate finance commitments under the Paris Agreement would be smaller than in the case of debt write-off but would be provided every year, easing impacts on the creditor's fiscal budget and becoming a more sustainable source of climate finance for the debtor. In practice both options — a partial debt write-off in exchange for contributions by the debtor to climate projects and a commitment by the creditor to allocate a percentage of the debt services received for the same purpose — could be considered and combined in a debt-for-climate swap deal, providing flexibility to accommodate the individual circumstances of debtors and creditors. Finally, this alternative arrangement would be available for non-Annex II countries of the

UNFCCC as a way to provide a voluntary contribution to climate finance.

One specific example of an initiative that could benefit from a debt-for-climate swap is the Pacific Resilience Facility of the Pacific Islands Forum Secretariat. This facility aims to provide grants to governments to fund small-scale, community level, disaster risk reduction projects such as retrofitting critical infrastructure, community centers, and schools, or small-scale coastal protection projects. While the facility is expected to be funded by capital contributions from development partners and Multilateral Development Banks, a debt-for-climate swap mechanism is also being considered as a complementary way to fund climate projects in the Pacific SIDS. ESCAP is currently providing technical assistance to the Pacific Islands Forum Secretariat to assess the feasibility of such a mechanism.

To conclude, there is no doubt that debt relief and scaling up financing for climate action are two major policy objectives in the era of COVID-19, and debt-for-climate swaps have the potential to simultaneously address both. This section has provided ideas for an effective way to negotiate and implement debt-for-climate swaps, which may prove useful for policymakers in debtor and creditor countries and other stakeholders.

4. ENABLING POLICY ENVIRONMENT TO FINANCE CLIMATE ACTION

Policies and strategies that enable the flow of finance to climate action, or climate finance policies, play a vital role in the transition to a low-carbon, climate-resilient future by incentivising investors to factor-in climate risks in their decision-making, directing capital flows to climate objectives, and promoting financial stability and best practice in the management of systemic climate-related risks. In the last few decades, climate finance policies — including environmental, social, and governance (ESG) and green and sustainable bonds related policies — have been adopted by many countries. However, each country has engaged with climate finance differently. In Asia and the Pacific,

many policymakers have not yet adopted climate finance policies and are considering which of them are most effective and efficient in delivering their intended policy objectives.

Measuring the degree of progress of different countries in climate finance policies is important to understand how they are progressing over time and identify gaps that could be filled through technical assistance and capacity building support. For this purpose, this section presents preliminary results from a unique Climate Finance Policy Index (CFPI) developed by ESCAP.⁷³

⁷³ Hasanudin, Zenathan Adnin et al. (2021). Measuring progress and assessing gaps in climate finance policies in Asia and the Pacific. ESCAP Working Paper. Forthcoming.

The index covers the period 2015-2020 for the following countries: Bhutan, Bangladesh, China, Fiji, India, Indonesia, Singapore, Thailand, and Sri Lanka. The index is constructed using a scoring methodology developed by the OECD,⁷⁴ based on a list of around 90 questions to examine national climate finance policies and legal environments.⁷⁵ Higher values of the index mean that the country is more developed in setting up the necessary legal, regulatory, and institutional basis to enable the financing of climate mitigation and adaptation. The list of measures considered to build the index are categorized under the following six themes:

- *Green Taxonomy and green budgeting.* Green taxonomy policies are essential to provide a framework to define climate-related sectors and to avoid greenwashing. Green budgeting helps countries to link their fiscal expenditure with efforts to finance climate action.
- *Carbon pricing.* Carbon pricing is increasingly recognised as an essential instrument to deliver the transition to a low-carbon future in a cost-effective manner.
- *Climate-related sectors.* Given the importance of climate adaptation and mitigation projects, green sectors such as renewable energy, green buildings and transport, and water and waste management, are critical to creating the shift from business as usual.
- *Green Capital Market Development.* Capital markets are essential to generate funding for climate action from public and private sectors with the rapidly expanding number of green investors both domestically and internationally.

- *Climate risk disclosure and sustainable finance reporting.* Climate risk disclosure policies have a critical role to play in encouraging informed investment decisions and efficient pricing of the risks and opportunities related to climate change.⁷⁶
- *Ease of doing business.* The ease of doing business measures the barriers to competition and restriction of entry in the observed country to promote investment in climate related sectors while limiting investment to fossil fuel sectors.

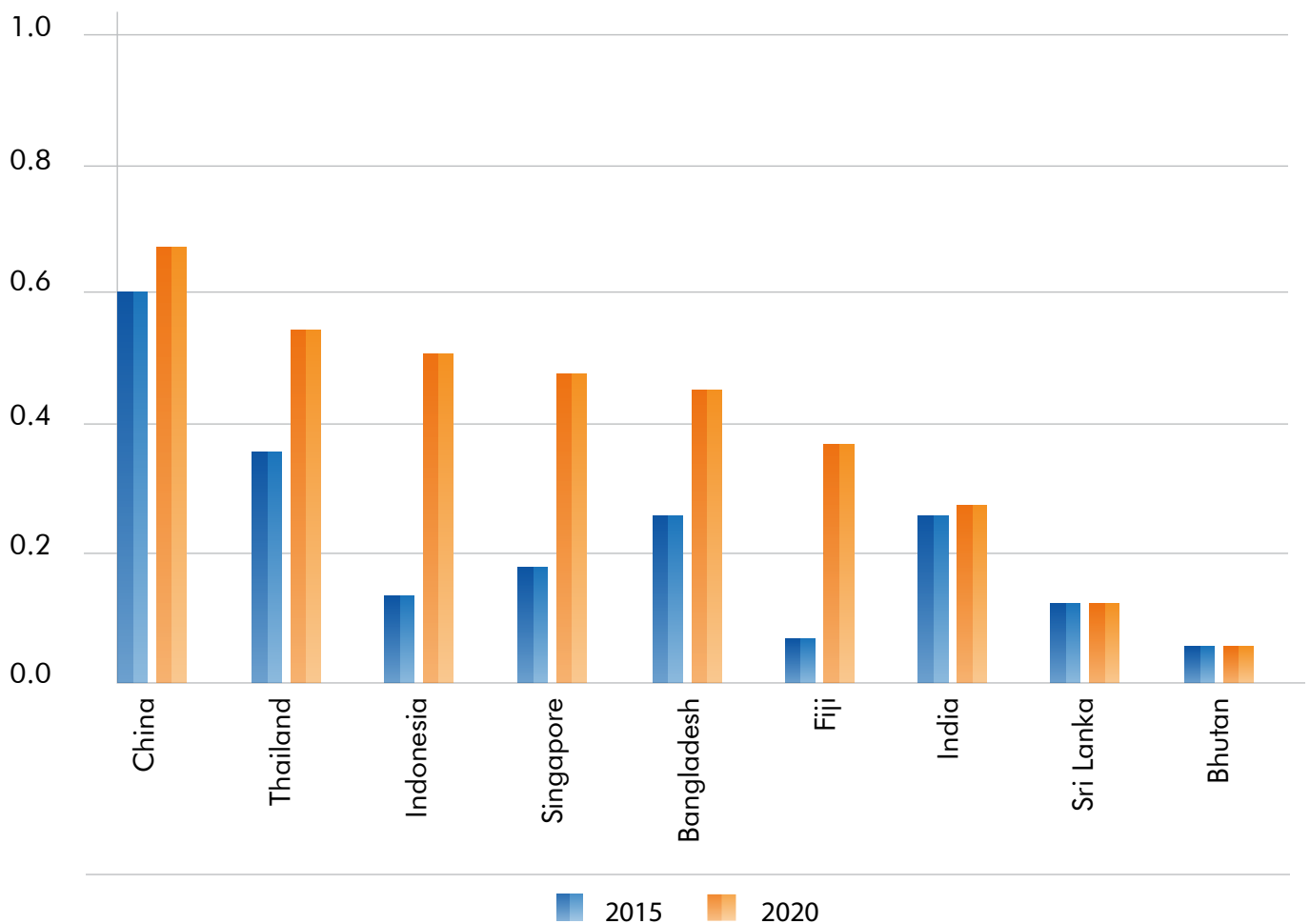
The CFPI is high in countries that have introduced major reforms to enable climate finance. Among the countries examined, China consistently scores high in all measures since 2015. This is due to the country's requirements to disclose climate risk exposures, well-established green capital markets with a clear green taxonomy, and sizeable issuances of green bonds. In the cases of Fiji, Indonesia, and Singapore, the CFPI has increased significantly between 2015 and 2020. This is due to the introduction of legal frameworks for bond issuances, as well as commitments to support renewable energy in their environmental laws. The scores of both Indonesia and Bangladesh increased because the financial authority in both countries introduced requirements for financial institutions and publicly listed companies to produce annual sustainable finance reports. Figure 8 shows results for 2015 and 2020.

⁷⁴ See STRI Scoring Methodology.

⁷⁵ Mabry, L. (2008). Case Study in Social Research. The Sage Handbook of Social Research Methods.

⁷⁶ Ilhan, Emirhan and Krueger, Philipp and Sautner, Zacharias and Starks, Laura T., Climate Risk Disclosure and Institutional Investors (2020). Swiss Finance Institute, European Corporate Governance Institute.

Figure 8: Climate Finance Policy Index – Selected Countries, 2015 and 2020



Source: ESCAP

Based on the countries examined, we conclude that policies that support low carbon and climate resilient investment are still at an early stage, and that considerable progress can be made. For example, many countries have mentioned carbon pricing as a climate finance tool in their NDCs. In addition, Indonesia and Fiji have expressed interest in implementing a carbon trading scheme. Details on how carbon pricing or carbon trading will be implemented are, however, lacking. See Box 3 for details on carbon trading.

The extent to which different policies are appropriate for each country depends on each country's distinct circumstances. An approach that is right for an industrial powerhouse like China, which has established numerous green regulations, may not be suitable for Bhutan, which has more limited individual climate finance

policies despite a policy framework that prioritizes the value of the environment and sustainable development. It is essential that the policy mix chosen in a country reflects its specific context and matches development priorities. Mapping the various policies in specific jurisdictions offers insights into how governments can incorporate innovative approaches to address climate change in the era of COVID-19 and beyond. These are summarized in the following five key messages:

a) Policymakers must identify policy solutions that can advance multiple objectives simultaneously

Finding and implementing the right mix of climate finance policies will be critical to achieving international climate goals and the broader sustainable development goals. A useful climate finance policy is to introduce financial regulations to

Box 3: Carbon Trading and Markets in Asia and the Pacific - Concept and Challenges

The expansion of carbon trading and markets under the Paris Agreement provides another potential source of climate finance by creating a monetary value for delivered GHG reductions. Carbon markets provide a system that enables companies and governments to meet GHG emission reduction targets through the purchasing of carbon credits or offsets.^a A carbon credit or carbon offset is equal to one tonne of carbon dioxide (or equivalent GHG) that has either been removed from the atmosphere or prevented from being released into the atmosphere. Carbon credits are created by certified activities that create and measure the number of tonnes of removals or reductions in GHGs from the atmosphere. Only additional removals or reductions in GHGs that happen because of the activities, and that would not have happened otherwise, can be counted and made into carbon credits. For example, a project to clear a forest for agriculture will release 1,000 tonnes of carbon dioxide into the atmosphere. A decision to conserve the forest will allow the same amount of carbon dioxide to remain stored in the forest. Once certified, a carbon credit is recorded electronically in a registry. The owner of the carbon credit can then sell it and the new owner will be registered with the identification number of the credit.

Source: ESCAP.

^a Paterson (2012).

^b Mu, Y., Evans, S., Wang, C., and Cai, W. (2018). How will sectoral coverage affect the efficiency of an emissions trading system? A CGE-based case study of China. Applied Energy.

Carbon markets are increasingly becoming a valuable instrument in addressing climate change and decarbonising the global economy by providing an additional source of climate finance that can increase the commercial viability of climate projects and can play an important role in further leveraging the impact of different types of climate finance instruments. Although there are some very promising signs in the development of carbon markets, particularly in North East Asian countries such as the Republic of Korea, Japan, and China, the emissions trading systems do not cover all sectors and all major carbon emitters in the policy.^b More generally, in other developing countries in the region the development of carbon markets has been limited.

It is important to recognize that carbon markets do not operate in a vacuum and require a robust legal and regulatory framework to successfully operate, and the establishment of such a framework remains a significant challenge for many countries in the region. Furthermore, there remain barriers to linking the existing carbon markets in the region to one another and other international carbon markets. This is due to differences across countries in market design, political views, institutional capacity, economic structures, and stages of development.

encourage banks to integrate climate considerations into their decision-making and lending processes. Banks are powerful institutions that can contribute to the societal transition from business as usual. By incorporating climate risks within their lending criteria, banks can make it easier for environmentally conscious firms to access climate finance — and more difficult for companies that harm the environment — helping to embed green practices into the business environment. In the past decade, climate and green banking initiatives have become widespread in many countries in the region with the launch of financial products and services such as green credit facilities and the introduction of new climate regulations for banks, such as the one in the Philippines described in Box 4.

b) Appropriate climate finance policies will help to scale up private sector investments towards climate action

The broader legal system and policy environment strongly influences investment decision making. The private sector could play an important role in contributing to financing climate action in various ways, including by (i) creating employment in green sectors, (ii) adopting environmental responsible practices that have positive impact on staff and the wider community, (iii) implementing philanthropic activities such as donations or programmes with sustainable development objectives, and (iv) financing projects with sustainable development aims through equity or debt.

Box 4: Sustainable Finance Framework in the Philippines

ESCAP, in collaboration with the Philippines Climate Change Commission (CCC) and the Association of Development Financing Institutions in Asia and the Pacific (ADFIAP), supported the Bangko Sentral ng Pilipinas (BSP), Philippines' central bank, in the development of a sustainable finance framework. BSP issued the framework in April 2020 as Circular 1085. The circular guides banks to integrate environmental, social and governance (ESG) principles into their day-

Source: ESCAP.

to-day business to mitigate the impact of the pandemic and support the implementation of the SDGs. In doing so, the circular provides a clear direction for the banking and finance sector of the Philippines to adopt sustainable financing practices. Because the circular mandates banks to disclose ESG risks in their portfolios, it is likely that it will influence bank clients in increasing the sustainability of their businesses.

c) *Governments willing to promote climate finance need to address interlinked legal, regulatory, institutional, and administrative impediments*

The right policies to improve access to climate finance will ultimately depend on each country's unique context. For instance, a legal barrier to climate finance in a country may be due to its legal system not being aligned with the investor's requirements. Another constraint can be a discrepancy between the country's emission targets and the existing legal and regulatory scheme. For instance, a country can have an ambitious emission reduction target, but its legal framework gives preferential treatment to fossil fuels extraction. "If the legal and regulatory systems of a country are unclear, overlapping, contradictory, show gaps or create unintended barriers, and/or provide limited enforcement ability or remedial actions, such country is less likely to attract the necessary climate finance."⁷⁷ There is also a need to strengthen legal national frameworks to facilitate and implement more ambitious nationally determined contributions to reach the 1.5°C target.⁷⁸

d) *The role of government agencies*

Although policy is commonly mandated through legislation and regulation, government

agencies can also introduce policy roadmaps to provide guidance that drives climate finance. Authorities need to ensure that policies under their jurisdiction are tailored to fulfill its role to contribute to improved access to climate finance. Finding the right mix of policies to achieve the overall aim will be essential.

e) *The State is crucial and must take the lead to develop capacity and foster innovation.*

Government investment in green growth industries and technology has been so far fundamental for the transition towards economies conducive to achieving the objectives of COP21. "The green energy revolution that has been experienced so far is a result of a complex long-term, multi-decade-long technological development and diffusion process that... benefitted from major government investments that encouraged the establishment of new firms and supported their growth by creating market opportunities."⁷⁹ The role of the State cannot be limited to 'de-risking' financial instruments to encourage investments in green technologies. In fact, successfully scaling up climate finance will require unprecedented collaboration between governments, regulators, development banks, and private investors to support climate finance and channel capital effectively away from activities

⁷⁷ Morita, Takako, and Pak, Christina (2018). Legal Readiness to Attract Climate Finance: Towards a Low-Carbon Asia and the Pacific. Carbon & Climate Law Review.

⁷⁸ Manguiat, Maria Socorro, Raine, Raine (2018). Strengthening National Legal Frameworks to Implement the Paris Agreement. Carbon & Climate Law Review.

⁷⁹ Mazzucato, Mariana (2015). The Green Entrepreneurial State. University of Sussex.

that are at odds with the international climate goals and towards low-carbon and climate-resilient development. Governments also have an important role to play in offering climate education in schools' curricula. Climate education can empower, inform,

and motivate future generations to act on climate change, as well as help to develop a workforce with the knowledge, skills, and drive to develop a sustainable, green economy.⁸⁰

CONCLUSIONS AND RECOMMENDATIONS

This chapter discussed the potential contributions of thematic bonds, climate-related risk disclosures, debt-for-climate swaps, and climate finance policies to enhance the flow of finance to climate mitigation and adaptation projects and the SDGs. The main takeaways of the chapter are the following:

- The rapidly growing market for thematic bonds, such as green, social, sustainability and climate bonds, provides an opportunity for developing countries in Asia and the Pacific to raise additional financing dedicated to climate action and the SDGs.
- The technical and institutional capacities to issue thematic bonds are uneven across the region, though some developing countries have already been successful in issuing thematic bonds.
- Developing countries should consider adopting global standards and taxonomies for thematic bonds issuances, which include clear indications on the kind of projects that can be financed with the proceeds from the bonds, as well as monitoring and reporting frameworks.
- Effective climate-risk disclosures enable market participants to understand the risks and opportunities of various investment options and allow them to be better allocated to fund sustainable climate solutions.
- Globally, there is increasing agreement on the need to align climate disclosure standards with the framework suggested by the Taskforce on Climate-related Financial Disclosures (TCFD), and to consider making such disclosures mandatory.
- Developing countries in the region are encouraged to adopt climate-related disclosures frameworks aligned with the TCFD.
- Debt-for-climate swaps offer the opportunity to bring together two critical pillars of the Paris Agreement, the NDCs, and the climate finance commitments by developed countries, while at the same time contributing to providing debt relief to developing countries.
- A debt-for-climate swaps term sheet including the main terms and conditions of a swap deal for all the parties involved could greatly facilitate the negotiation process and reduce transaction costs. The term sheet could take advantage of existing taxonomies and standards, as well as environmental and social safeguards, to provide clarity on the projects to be funded through the swap and about local stakeholders that need to be included in the negotiations.
- To be successful, debt-for-climate swap deals need to use a strong monitoring, reporting, and verification (MRV) framework, be of a sufficient scale to provide clear benefits for both debt relief and climate action and ensure the ownership of debtor countries.
- The role of the State cannot be limited to 'de-risking' financial instruments to encourage investments in green technologies. Strong and coherent legal, regulatory, and institutional frameworks are also needed to facilitate collaboration between governments, regulators, development banks, and private investors with the aim of channelling finance effectively away from activities that are at odds with the international climate goals and towards low-carbon and climate-resilient development.

⁸⁰ Commonwealth Education Hub (2015). The role of education in propelling climate action.



CHAPTER 3



DIGITAL FINANCE AND SUSTAINABLE DEVELOPMENT IN ASIA-PACIFIC: CULTIVATING AN ECOSYSTEM APPROACH

OVERVIEW

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DIGITAL FINANCE AND SUSTAINABLE DEVELOPMENT IN ASIA-PACIFIC: CULTIVATING AN ECOSYSTEM APPROACH¹

INTRODUCTION

Digitalization, driven by increased access to technologies such as mobile communications, smartphones, and the Internet, is changing the structure of global economies and societies across the globe. With nearly 60 per cent of the global population having digital access, digital technologies have fundamentally changed how we share information, conduct financial transactions, and maintain interpersonal relationships.² Furthermore, the rate at which digitalization is changing global economies is accelerating as a result of the COVID-19 pandemic. The growing reliance on e-commerce and online transactions due to public health restrictions and social distancing during the pandemic suggests that digitalization will play a key role in advancing economic and social development across Asia and the Pacific during the recovery from COVID-19 and beyond.³

This chapter examines the role of digital finance in supporting sustainable development in the Asia-Pacific

region, building on the work of the UN Secretary General’s Task Force on Digital Financing of the Sustainable Development Goals and its report released in August 2020 (henceforth referred to as the “Digital Financing Task Force Report” or “DFTF report”).⁴ The chapter begins by exploring how digital finance and associated digital technologies in Asia-Pacific can facilitate the attainment of the UN Sustainable Development Goals (SDGs). The following section explores “digital rails”—or the foundational digital requirements to allow e-finance solutions to successfully operate—followed by examples of successful digital finance offerings and solutions. The chapter then addresses risks related to digitalization and digital finance such as new forms of digital crime and weak regulatory frameworks. The final section of the chapter discusses strategies to optimize the benefits of digitalization and digital finance to support the region’s progress towards the achievement of the SDGs in 2030.

1. DIGITAL FINANCE AND THE SDGs IN ASIA AND THE PACIFIC

The COVID-19 pandemic has highlighted ways in which digital finance can be leveraged to support vulnerable people. These include the creation of new opportunities for small businesses and workers through the expansion of e-commerce platforms and delivery services, allowing governments to deliver social protection in a rapid, secure and efficient manner, and facilitating cash transfers among individuals who lack bank accounts. Digital finance has the potential to dismantle what traditionally have been significant

logistical hurdles to universal financial access. As pointed out in the DFTF report, “this surge in the digital world amplifies the opportunity and the need for it to be harnessed in the longer-term pursuit, and financing, of sustainable development.”⁵

Digital finance can play a pivotal role in accelerating the achievement of financial inclusion, which underpins economic growth, equality, and poverty reduction targets in the SDGs. Digital technologies can have a

¹ This chapter was prepared by Douglas Arner, Alberto Isgut, Deanna Morris and Artem Sergeev. Han Jian provided research assistance. Cedric Javary, Nitin Madan, Xiaochen Zhang, and Xinbei Zhou provided inputs.

² Statista (2021). Global digital population as of January 2021.

³ UNCTAD (2021). How COVID-19 triggered the digital and e-commerce turning point.

⁴ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020). *People’s Money: Harnessing Digitalization to Finance a Sustainable Future*.

⁵ UN Task Force on Digital Financing of the Sustainable Development Goals (2020).

transformative effect on financial inclusion by enabling access to regulated, fast, accessible, and affordable digital finance solutions such as payments, digital savings, credit, and alternative financing options. This is particularly relevant in contexts where access to ATMs is limited, such as in Myanmar where in 2019 there were only 6.86 ATMs per 100,000 adults.⁶ Improved financial inclusion, supported by effective regulations can, in turn, contribute to the attainment of the SDGs by directly and indirectly facilitating economic growth (SDG 8), eradicating poverty (SDG 1) and promoting economic equality (SDG 5 and SDG 10). In addition, because of the potential of digital finance to improve efficiency and transparency, it can also contribute to SDG 16 (peace, justice, and strong institutions).

A key feature of digital finance as a tool for resilience in a post-pandemic world is that it reduces people's vulnerability. For instance, technologies like digital wallets allow people to digitize cash savings, thus reducing cash-related risks such as theft or loss.⁷ While digital wallets can be interest-bearing, savings-based loan offerings allow individuals to not only protect their money but also save, borrow and invest in their future. In addition, digital financial services such as payments can increase efficiency, reducing the time needed to pay bills or process daily transactions.⁸ Moreover, digital finance can broaden access to financial services in remote locations or by unbanked people, including access to new services such as digital insurance, which can protect people from unexpected events, such as sickness or job loss, and reduce their risk of falling into poverty. The digital pathway thus holds the potential to level asymmetrical financial access for rural and urban populations, which traditionally suffer from massive disparities in economic participation due to the absence of brick-and-mortar banks in rural areas. Similarly, digital finance offerings can increase access to financial

resources for micro, small and medium-sized enterprises (MSMEs), allowing them to grow their businesses and contribute to real economic activity.⁹ Finally, mobile money provides financially excluded people with the opportunity to connect to the financial system and take advantage of service offerings, providing a crucial entry point into the formal financial system.

The increase in access to financial services by broad segments of the population requires an expansion of the information and communications technology (ICT) sector, which has grown rapidly in Asia and the Pacific over the last decade.¹⁰ Between 2005 and 2015, annual ICT sector growth averaged 15.9 per cent in India, 13.7 per cent in China, and 7.1 per cent in Thailand.¹¹ There is evidence of a causal relationship between the growth in the ICT sector and overall economic growth, and thus SDG 8. In China, for instance, a 1 per cent growth in digitalization was found to lead to a 0.3 per cent growth in the overall GDP.¹² Digitalization-driven economic growth has also proven to be broad-based, meaning that it supports the process of raising median income levels to the extent that it plays a contributing role in eradicating poverty (SDG 1). In Thailand it has been estimated that the expansion of financial inclusion facilitated by the growth of the digital economy has the potential to lift 20 million people out of poverty by helping individuals and MSMEs boost productivity and efficiency, for example by facilitating access to markets at minimal cost and risk.¹³

Digital finance solutions can also play an important role in reducing gender inequalities (SDG 5), which are rather high in some countries of the region.¹⁴ Mobile money platforms have the potential to address this gap and facilitate women's access to basic financial services. The experience of M-Pesa, the pioneering mobile money transfer service launched in Kenya in

⁶ IMF, Financial Access Survey (2020).

⁷ Arner D. W., Buckley R. P., Zetzsche D. A., Veidt R. (2019). Sustainability, FinTech and Financial Inclusion. University of Luxembourg Law Working Paper Series.

⁸ Ibid.

⁹ Ibid. See also United Nations, Economic and Social Commission for Asia and the Pacific (2021). Rethinking MSME Finance in Asia and the Pacific: A Post-Crisis Policy Agenda.

¹⁰ Sedik T. S. (2018). Asia's Digital Revolution. Finance & Development.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid. See also International Bank for Reconstruction and Development and The World Bank (2019). The Digital Economy in Southeast Asia Strengthening the Foundations for Future Growth. Open Knowledge Repository.

¹⁴ For instance, in Bangladesh, India, and Pakistan women are 30 per cent less likely than men to have an account at financial institutions. See Sioson E. P., Kim C. J. (2019). Closing the Gender Gap in Financial Inclusion through Fintech. ADBI Institute.

2007, showed that mobile money platforms can help lift women out of extreme poverty, broaden socioeconomic opportunities and increase household consumption levels.¹⁵ Six years after the launch of M-Pesa, an estimated 194,000 households were lifted above the poverty line, an impact attributed to the improved resilience and career shifts that mobile money enabled, primarily in women-headed households.¹⁶ Mobile money can also help women to free up their time and resources by reducing the cost and time required for daily transactions such as payments and transfers, allowing them to invest their time in other productive economic and social activities with a positive impact on household income generation.¹⁷ However, many obstacles remain for countries with prohibitive gender norms, particularly social norms that influence women's mobile ownership and usage of mobile phones,¹⁸ digital financial literacy, and know your customer (KYC) requirements to open accounts.¹⁹

While digital finance offerings provide a range of solutions for individuals and businesses, digital technology solutions also extend to the public sector. Aside from financial regulatory and supervisory technologies, which are discussed in section 4, digital technology solutions can contribute to transparency in the public sector, provision of public services, and improve the efficiency of public revenue collection. Starting with transparency, the adoption of digital procurement platforms and open budget portals allows citizens to monitor public spending and budget execution. In turn, increased transparency can deter corruption and improve public accountability, facilitating long-term economic growth and strong institutions (SDG 16). In Asia and the Pacific, the Philippines and Indonesia have adopted fiscal transparency policies and moved towards digitally available open budgets.²⁰

Digital technology can also significantly improve the provision of public services through government-to-person payments (G2P) of social benefits, the provision of digital IDs, and e-government portals. India, Malaysia, and several other countries in the region have moved towards the digitalization of public services, increasing their accessibility and reducing administrative costs.²¹ Digitalization can also improve the efficiency of public revenue collection from tariff and value-added taxes by streamlining the reporting of financial transactions and reducing opportunities for tax evasion.²² For example, the IMF estimated that the digitalisation of financial transactions in Southeast Asian countries can increase their VAT revenues by 1.2 per cent of GDP.²³

The importance of digital technologies became more apparent during COVID-19 as governments and people came to value secure, affordable, and contactless financial tools. In 2020, new or expanded G2P payments reached hundreds of millions of individual beneficiaries in the Asia-Pacific region. These services allowed governments to reach households and firms fast and at low cost, thus fostering inclusive recovery, addressing vulnerabilities and boosting resilience. Countries with existing G2P payment ecosystems were able to make available swift lifesaving cash support, while online payments and trading helped businesses, especially micro, small and medium-sized enterprises, survive repeated lockdowns. Digital finance is set to play an even more significant role for governments, businesses and citizens during and beyond the recovery phase.

While the above discussion highlighted the most apparent effects of digital finance on the SDGs, it is

¹⁵ Ibid.

¹⁶ Innovations for Poverty Action (IPA) tracked the economic impact of M-Pesa agent network expansion between 2008 and 2014. See Innovations for Poverty Action (IPA) (n.d.). The Long Term Effects of Access to Mobile Money in Kenya.

¹⁷ Ibid.

¹⁸ GSMA (2015). Connected Women: Bridging the gender gap: Mobile access and usage in low and middle-income countries.

¹⁹ KYC requirements to open accounts include proof of identity and other necessary documentation, such as proof of address and source of income, which many women may lack. To facilitate access to accounts by women, a tiered KYC system, with less stringent requirements for low-value or simplified bank accounts that can have a balance cap, can be useful. See Gelb, A. (2016). Balancing Financial Integrity with Financial Inclusion: The Risk-Based Approach to 'Know Your Customer'.

²⁰ Karippacherilkai T. G., Kaiser K., Seiderer F. (2014). Is Technology Sufficient for Fiscal Transparency & Openness? Lessons from East Asia and North Africa. World Bank Blogs.

²¹ Choi, J. and Xavier, J. (2021). Digitalization of Public Service Delivery in Asia. Asian Productivity Organization.

²² Sedik T. S. (2018). Asia's Digital Revolution. Finance & Development.

²³ Ibid.

worth noting that digital financial technologies can have a direct or indirect impact on the attainment of all the SDGs. For example, better access to financing can increase the performance of the agriculture sector, contributing to the eradication of hunger (SDG 2).²⁴ Similarly, the digitalization of public financing can improve infrastructure and access to clean water and energy (SDG 9),²⁵ digital insurance platforms

can improve access to healthcare by making it more affordable (SDG 3), and mobile money platforms can enable users to save money and invest in education (SDG 4) or economic activities (SDG 8). With this potential in mind, the next section reviews the digital infrastructure – or “digital rails” – required to enable digital finance to thrive.

2. THE DEVELOPMENT OF “DIGITAL RAILS” IN ASIA AND THE PACIFIC

Harnessing the potential of digital finance requires an understanding of an ecosystem approach that incorporates both financial and non-financial digital solutions alongside policy and regulatory measures. Digital financial infrastructure – or “digital rails” – is an important component of the ecosystem. It includes access to digital services and broadband connectivity, open and interoperable digital payment systems, digital IDs, and citizen-empowering data sharing mechanisms. This section discusses progress in Asia and the Pacific with regards to the first three elements, or the so-called “digital trinity”: access to devices, digital payments systems and digital identities.

2.1. Digital Access and Infrastructure

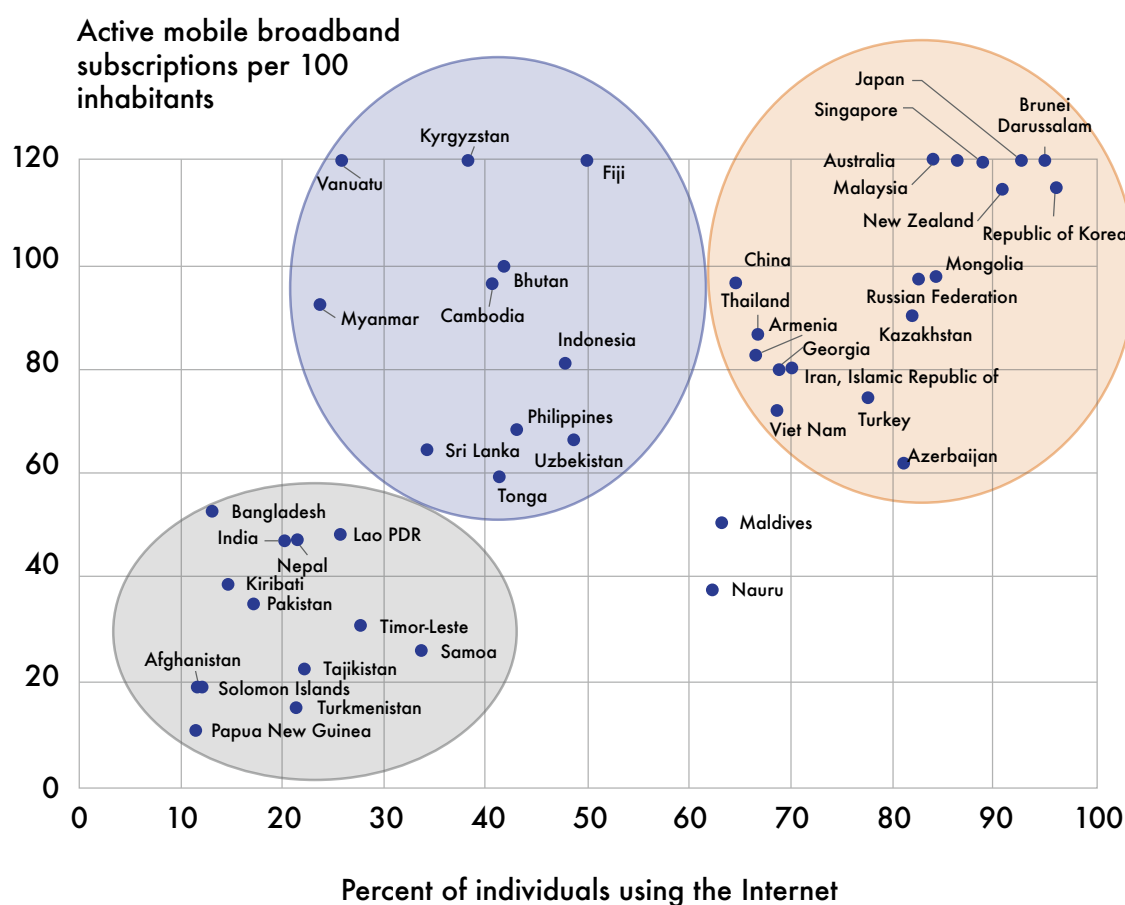
The key foundation of digital finance is digital inclusion, which requires universal access to broadband Internet services. Figure 1 below shows two related indicators: Internet access in the horizontal axis and active mobile broadband subscriptions on the vertical axis. The two variables are correlated because mobile broadband allows access to the Internet. Mobile broadband, however, is measured by the number of active subscriptions and some people can have more than one subscription. As a result, the percentage of the population with mobile broadband subscriptions in the dataset is, on average, higher than the percentage of the population with Internet access.

In Asia and the Pacific, the average active mobile-broadband subscriptions and individuals using the Internet are, respectively, 81 per cent and 51 per cent of the population. However, these averages hide rather uneven levels of access across countries. Figure 1 shows three clusters of countries. In a high-access cluster that includes Armenia, Australia, Azerbaijan, Brunei Darussalam, China, Georgia, Islamic Republic of Iran, Japan, Kazakhstan, Malaysia, Mongolia, New Zealand, Republic of Korea, Russian Federation, Singapore, Thailand, Turkey, and Viet Nam, the average active subscribers to broadband networks and internet users are, respectively, 105 per cent and 79 per cent of the population. But in a low-access cluster that includes Afghanistan, Bangladesh, India, Kiribati, Lao PDR, Nepal, Pakistan, Papua New Guinea, Samoa, Solomon Islands, Tajikistan, Timor-Leste, and Turkmenistan, those averages are only 32 per cent and 19 per cent.²⁶ The data also reveals a positive correlation between access to Internet and mobile broadband on one hand and income levels on the other (Table 1).

²⁴ See generally FAO (2018). *Tackling Hunger and Poverty Through Digital Innovation*.

²⁵ See generally Aker J. C. (2017). *Using Digital Technology for Public Service Provision in Developing Countries*, in Gupta S., Keen M., Shah A., Verdier G. (2017). *Digital Revolutions in Public Finance*, IMF.

²⁶ A cluster of countries with medium levels of access includes Bhutan, Cambodia, Fiji, Indonesia, Kyrgyzstan, Myanmar, Philippines, Sri Lanka, Tonga, Uzbekistan, and Vanuatu, with average active subscribers to broadband networks and Internet users of, respectively, 78 per cent and 42 per cent of the population.

Figure 1: Access to the Internet and mobile broadband

Source: ESCAP based on data from International Telecommunications Union, 2019-2020, Facts and Figures, available from <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>.

Note: The vertical axis is truncated at 120 per cent. For example, the value of active mobile broadband subscriptions per 100 inhabitants in Singapore is 155, but the chart shows a value of 120. The data is the latest available. For Internet access about 90 per cent of the observations are for 2017 or 2019. For access to mobile broadband, close to 80 per cent of the observations are for 2019.

Table 1: Average access to Internet and mobile broadband, by income level

Income Level	Average per cent of individuals with Internet access	Average active mobile broadband subscriptions per 100 inhabitants
Low-Income Economies	16.4	33.4
Lower-Middle-Income Economies	34.7	70.8
Upper-Middle-Income Economies	63.1	75.6
High-Income Economies	91.7	144.3
Total Average	51.3	80.8

Source: ESCAP based on data from International Telecommunications Union, 2019-2020, Facts and Figures. Available at <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>.

Note: Income classification by World Bank. See <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

In sum, the data reveals that access to Internet and mobile broadband is heterogeneous in Asia and the Pacific, and it is correlated with income levels. In addition to differences across countries there are important differences in access within countries. According to recent data by the International Telecommunications Union, the percentage of urban households in Asia and the Pacific with access to the Internet is 70.4 per cent, compared to 37 per cent for rural households.²⁷ This highlights the need for strategies and policies to bridge the digital divide in Asia and the Pacific, both across countries and within countries. Particularly in the aftermath of economic setbacks heralded by the COVID-19 pandemic, it is fundamental to mitigate the emerging inequalities resulting from skewed ICT access.

Several regional projects, such as the Asia-Pacific Information Superhighway (AP-IS)²⁸ launched in 2017 by ESCAP member states, have been implemented to reduce digital exclusion and improve cross-border connectivity, manage traffic, and create resilient infrastructure. Another example is the Asia-Pacific Remote Broadband Internet Satellite Project, which aims to use satellites to provide affordable and accessible bandwidth to regions with poor digital infrastructure.²⁹ The project will serve 25 countries in Asia and the Pacific, potentially improving broadband access in countries with poor digital inclusion. Other initiatives utilize fibre cables to lower broadband costs and increase Internet penetration. For example, Manatua One Polynesia Fibre Cable is one of the recent projects designed to bring affordable Internet to the Cook Islands, Niue, Samoa, and French Polynesia.³⁰

In all cases there is a need to address the challenges of enhancing digital access in the “last mile,” for vulnerable or excluded populations, including those

who are impoverished, illiterate, living in rural areas, ethnic minorities and women. Some of the challenges may be related to the lack of infrastructure, such as the absence of mobile coverage and energy infrastructure in rural areas. Another barrier could be high costs of smartphones, mobile subscriptions or unaffordable mobile data plans.³¹ In India, the cost of the cheapest available smartphone on the market is 206 per cent more than the average monthly income, according to the Alliance for Affordable Internet (A4AI).³² Other obstacles to connectivity are related to cultural barriers and lack of digital literacy, which prevent women and other social groups from accessing digital technologies.³³ In Asia and the Pacific, 48.3 per cent of males have access to the Internet compared to 41.3 per cent of females.³⁴ Age is also a factor, with 70.3 per cent of the youth (aged 15 to 24) having access to the Internet in the region compared to 44.5 per cent for the whole population.³⁵ Given differences across countries, the promotion of digital inclusion will require a context-sensitive approach that relies on a variety of strategies such as public-private digital infrastructure partnerships and digital education and inclusion projects.

2.2. Digital payment systems

Payment systems create the basic infrastructure for an effective flow of money throughout the economy, and are thus essential for economic growth, financial inclusion, and sustainable development.³⁶ They also serve as a core mechanism to enable government payments and transfers, including as part of broader e-government development. Digital payment systems can address the shortcomings of traditional systems by reducing costs of financial intermediation and providing faster and more reliable payment services. In addition, digital payments are often the first entry point to digital finance for low-income or excluded populations.

²⁷ ITU (2020). Measuring digital development: Facts and figures 2020.

²⁸ The Asia-Pacific Information Superhighway initiative is an intergovernmental platform set up by with the aim to bridge the digital divide and accelerate digital transformation by promoting digital connectivity, digital technology and data use in the Asia Pacific region.

²⁹ Schou-Zibell L. (2020). The Internet is Coming – With Risks and Benefits – To New Areas in Asia and The Pacific. Asian Development Bank Blog.

³⁰ Ibid.

³¹ International Telecommunications Union (2019-2020).

³² Alliance for Affordable Internet (2020).

³³ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

³⁴ ITU (2020). Measuring digital development: Facts and figures 2020.

³⁵ Ibid.

³⁶ Arner D. W., Buckley R. P., Zetzsche D. A. (2018). Fintech For Financial Inclusion: A Framework for Digital Financial Transformation. AFI Special Report.

Globally, digital payments have evolved markedly with accelerated growth during the past two years of government measures to manage the COVID-19 pandemic. Beyond traditional digital payment methods such as debit and credit cards, new payment solutions, such as digital wallets, mobile wallets, mobile and Internet banking, and contactless payments through QR codes, have expanded rapidly, providing an alternative to cash for low-volume retail payments.³⁷ The first digital wallet was launched by PayPal in 1999 to cut the hefty credit card fees for merchants selling small-value items through the Internet. Subsequently, the development of digital payments was catalyzed by e-commerce platforms, such as Amazon and Alibaba, which provide electronic marketplaces with merchants from all over the world. These platforms offer complementary digital payments platforms, such as Amazon Pay and Alipay, which allow the transfer of funds from consumers' accounts with traditional financial institutions or credit cards to digital wallets for purchases of goods and services from merchants enrolled in the platform. In 2011 Alipay introduced the use of QR codes for online payments, payments to merchants offline, and peer-to-peer (P2P) transfers.³⁸

The use of digital payments is increasingly popular among Asian economies with large populations of mobile phone and technology users, such as China, Republic of Korea, Japan, Singapore, and India. China, the country which has undergone a digital financial transformation to the greatest extent, has spearheaded the drive towards a cashless society through its most popular mobile wallets, Alipay and WeChat Pay, a peer-to-peer payment platform available through Tencent's WeChat app.³⁹ In Southeast Asia, ride-hailing online e-commerce service providers have spurred a similar trend towards a growing use of digital wallets with platforms such as GrabPay by Grab, which is popular in Malaysia, Singapore, Thailand, and Philippines, and GoPay by Gojek, which is popular in Indonesia. Revenue generation from the use of digital payments

in Asia and the Pacific, where e-commerce is driving digitalization, increased three-fold between 2010 and 2019, from \$300 billion to \$900 billion.⁴⁰

However, the development of digital payments in the region has been uneven. As shown in Figure 2, the prevalence of digital payments is highest in New Zealand, Australia, Japan, Republic of Korea, Singapore, the Islamic Republic of Iran, and Mongolia, where 80 per cent or more of the adult population used digital payments in 2017. In the Russian Federation, Malaysia, China, Turkey, Thailand, Kazakhstan, and Georgia, between 50 per cent and 80 per cent of the adult population made or received digital payments. For the remainder of the countries in the region, the digital payments usage rate is below 50 per cent, with an average of 27.1 per cent. As expected, there is a positive relationship between the use of digital payments and Internet access, which is also shown in the figure. However, access to the Internet should be understood as a necessary but not sufficient condition for digital payments. For instance, a lack of basic financial and digital literacy skills is likely to impede the usage of digital payments even for people who have access to mobile phones and the Internet.

In addition to e-commerce platforms, mobile network operators (MNO) played an important role in the development of digital payments in developing countries. Due to limitations in digital infrastructure, MNOs developed an ecosystem of payment agents to facilitate access to digital payments in the "last mile" by unbanked individuals with no access to the Internet. The agents were small, family-owned businesses, to whom MNOs paid a commission each time their shop was used for the conversion of physical cash to electronic money (cash in) or vice-versa (cash out). The services offered initially included peer-to-peer (P2P) transfers and subsequently added utilities payments. The Philippines pioneered this approach with the launch of G-Cash in 2004 by Globe Telecom.

³⁷ SUERF (2020). Inclusive payments for the post-pandemic world.

³⁸ The QR code, or Quick Response code, was invented in Japan in the 1990s to overcome limitations of the bar code in automotive just-in-time supply chains.

³⁹ OMFIF (2020). Asia's Unmatched digital payments growth.

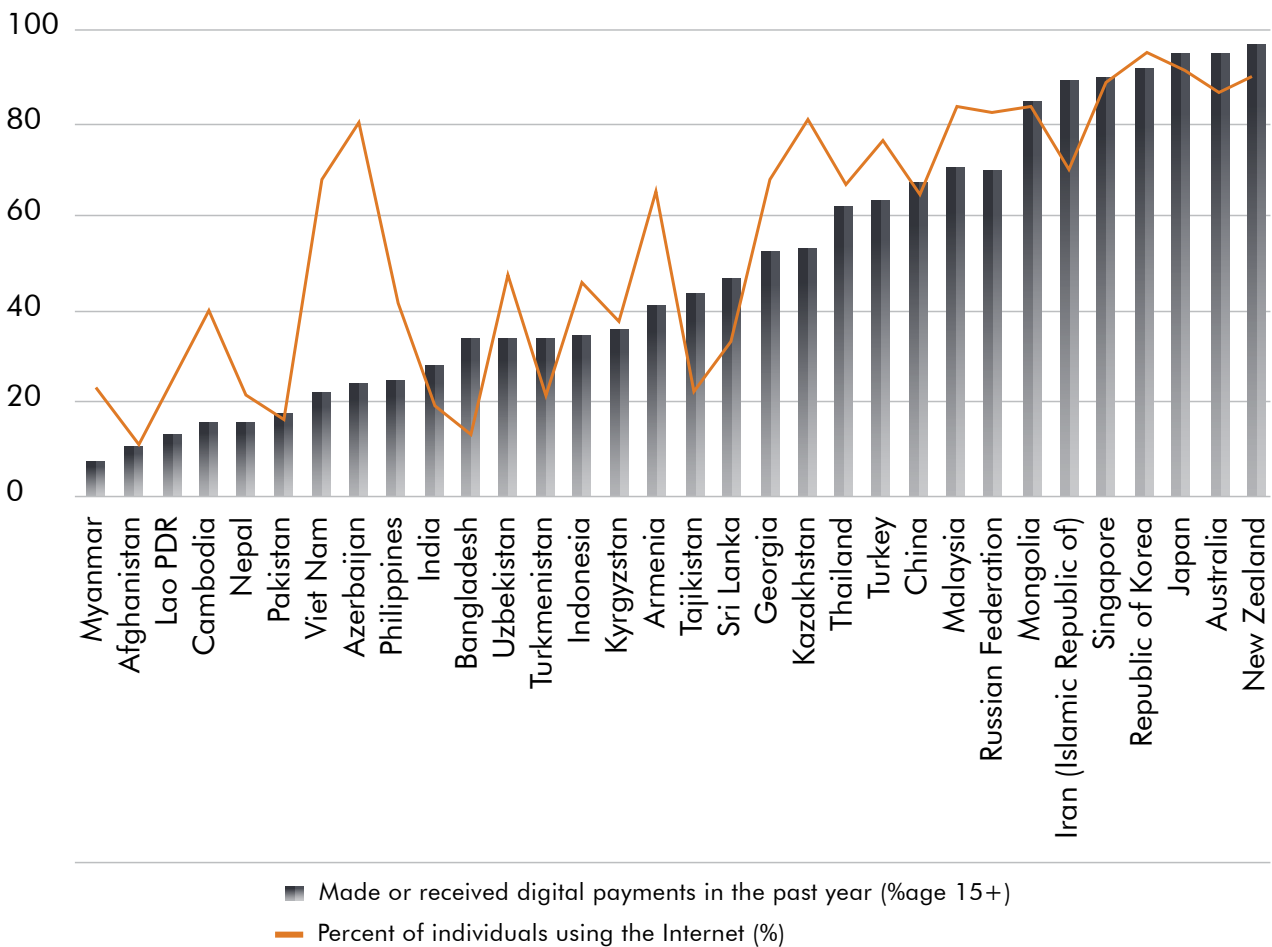
⁴⁰ McKinsey (2020). The 2020 McKinsey Global Payments Report; BIS (2011). Payments go (even more) digital.

It allowed P2P transfers and micro-payments using an SMS interface. Global recognition came later with the launch of M-Pesa in 2007 by Safaricom in Kenya, which was replicated two years later with even greater success in Tanzania by parent company Vodafone. The multitude of success stories across Asia and the Pacific in the development of digital transfers through agent networks exemplifies how MNOs play a leading role in mainstreaming digital payments services in society. From Wave Money in Myanmar with its US \$4-5 billion transactions volume in 2019,⁴¹ to B-Cash in Bangladesh and Wing in Cambodia, MNOs are paving the way for financial digitalization.

More recently, digital payment providers have been offering a broader range of services besides P2P

transfers and utility payments. For example, by utilizing transactions data to create a financial history for clients, they are able to offer new services for the unbanked or underbanked, such as savings, loans, and low-cost remittance options. In addition, some mobile money providers have created joint programs with banks, as is the case with M-Shwari, which leverages M-Pesa’s payment network and offers savings and loan products through its partnerships with the Commercial Bank of Africa. Similarly, Wing Cambodia, Cambodia’s leading mobile services and payment solutions provider, was granted a commercial banking license in April 2021, allowing the company to leverage its extensive 9,300-plus agent network to expand its wide array of service offerings to include loans and deposits.

Figure 2: Digital payments and Internet usage



Source: ESCAP based on data from World Bank (2017) Global Findex Database; International Telecommunications Union (2019-2020). Facts and Figures.

⁴¹ Nitta, Yuichi (2019). Myanmar’s digital money transfers set to triple in 2019. Nikkei Asia.

While private businesses, such as e-commerce platforms and mobile network operators, have led the development of digital payments in Asia and the Pacific, central banks are catching up through the development of public payment gateways. These aim to create interoperability across different payment platforms, handled by both traditional financial institutions and newcomers such as Alipay, GrabPay or Wing. The development of Fast Payment Systems (FPS) allows countrywide retail payments, vastly expanding the capabilities of the Real Time Gross Settlement (RTGS) systems introduced in the 1990s for interbank transfers.⁴² Examples of FPS in Asia and the Pacific include: Faster Payment System (FPS) in Hong Kong, China; unified payments interface (UPI) in India; Pay Now in Singapore; New Payments Platform in Australia; and Prompt Pay in Thailand. In October 2020, Cambodia launched Bakong, a fast payment system based on blockchain technology that offers real-time retail fund transfers through mobile phones.⁴³ Bakong eliminated the need for financial service providers in Cambodia to develop their digital customer interface, thus lowering costs, facilitating interoperability, allowing for digital transfers across financial services providers in Cambodia and internationally, and increasing security. This platform is expected to significantly further financial inclusion in Cambodia.

The next frontier in the development of public digital payments is the issuance of central bank digital currencies (CBDC). According to a Bank of International Settlements report, in addition to providing safe, trusted and widely accessible digital means of payment, CBDC could also foster competition among the private sector and act as a catalyst for continued innovation in payments, finance, and commerce.⁴⁴ In the Asia-Pacific region, the People's Bank of China (PBOC) is piloting the development of the digital yuan or e-CNY in 11 cities.⁴⁵ According to a recent report by the PBOC, the e-CNY is a retail central bank digital currency (CBDC) to be issued to the public, as opposed to a wholesale CBDC issued to commercial banks and other institutions for large-volume transactions.⁴⁶ The issuance of e-CNY is expected to “fully meet the public’s daily payment needs, further improve the efficiency of the retail payment system and reduce the cost of retail payments.”⁴⁷ The PBOC’s report notes that the e-CNY is technically ready for cross-border use but will be used mainly for domestic retail payments at first.⁴⁸ Table 2 below lists the digital currencies under development in Asia and the Pacific as of August 2021. In addition to the e-CNY, only two other CBDCs, Singapore’s Ubin and Republic of Korea’s South Korea’s CBDC, are undergoing pilots.

⁴² World Bank (2020). Fast Payments Systems: Preliminary Analysis of Global Developments.

⁴³ The Asian Banker (2020). Background Notes on Cambodia’s national mobile payments and digital currency platform- Bakong.

⁴⁴ Bank for International Settlements (2020). Central Banks and Payments in the Digital Era.

⁴⁵ Bloomberg (2021). China’s Digital Yuan Trial Reaches \$5.3 Billion in Transactions.

⁴⁶ People’s Bank of China (2021). Progress of Research & Development of E-CNY in China. Working Group on E-CNY Research and Development of the People’s Bank of China.

⁴⁷ Ibid.

⁴⁸ Ibid.

Table 2: CBDC Development in Asia -Pacific Countries

Digital Currency	Country/Region	Central Bank(s)	Announcement Year	Status	Retail / Wholesale
South Korea CBDC	Republic of Korea	Bank of Korea	2021	Pilot	Retail
New Zealand CBDC	New Zealand	Reserve Bank of New Zealand	2021	Research	Retail
Viet Nam CBDC	Viet Nam	State Bank of VietNam		Research	Retail
Thailand CBDC	Thailand	Bank of Thailand	2021	Research	Retail
Hong Kong CBDC	Hong Kong, China	Hong Kong Monetary Authority	2021	Research	Retail
Digital Rupiah	Indonesia	Bank Indonesia	2018	Research	Retail
Digital Tenge	Kazakhstan	National Bank of Kazakhstan	2020	Research	Retail
Digital Ruble	Russian Federation	Bank of Russia	2019	Research	Retail
Georgia CBDC	Georgia	National Bank of Georgia	2021	Research	Retail
Pakistan CBDC	Pakistan	State Bank of Pakistan	2019	Research	Retail
Digital Yen	Japan	Bank of Japan	2020	Proof of concept	Retail
India CBDC	India	RBI	2021	Research	Retail
E-Ringgit	Malaysia	Bank Negara Malaysia	2017	Research	Retail
Digital Lira	Turkey	Central Bank of the Republic of Turkey	2018	Research	Retail
Australia CBDC	Australia	Reserve Bank of Australia	2021	Research	Retail
Philippines CBDC	Philippines	Rizal Commercial Banking Corporation	2020	Research	Retail
e-CNY	China	People's Bank of China	2017	Pilot	Retail
SOV	Marshall Islands	Bank of Marshall Islands	2018	Proof of concept	Other
LionRock	Hong Kong, China	Hong Kong Monetary Authority	2019	Proof of concept	Wholesale
Ithanon-LionRock	Thailand	Bank of Thailand	2019	Proof of concept	Wholesale
Iran CBDC	Iran (Islamic Republic of)	Central Bank of Iran	2018	Research	Retail
Ubin	Singapore	Monetary Authority of Singapore	2016	Pilot	Wholesale
Stella	Japan	Bank of Japan	2016	Research	Wholesale

2.3. Identification requirements and Sovereign digital ID

The lack of appropriate identification documentation required for KYC and customer due diligence (CDD) processes can be an important obstacle to the expansion of digital products and thus financial inclusion. Given that the lack of a single form of identification can be a hurdle, the common financial regulatory requirement for multiple forms of IDs to open an account creates significant challenges, particularly for poor and vulnerable populations. The development of a robust financial ecosystem requires individuals to have better access to traditional and digital IDs that can facilitate compliance with global anti-money laundering and combating the financing of terrorism (AML/CFT) standards.

In this context, the implementation of sovereign digital IDs is an important element of the overall digital transformation in the Asia Pacific region. Sovereign digital IDs are similar to physical documents, such as passports and ID cards, and are used to authenticate a person's identity by or under government authorization. However, unlike traditional passports, digital IDs can be authenticated through digital channels, facilitating access to essential public and private services that require personal identification. Digital IDs can be used to open bank accounts, gain access to public services, or enrol in education programs. They are particularly important for vulnerable groups that lack access to traditional forms of identification. As was highlighted by the 2018 Global Findex, around 19 per cent of the 1.7 billion unbanked adults cited a lack of

documentation as a reason for the inability to access financial services.⁴⁹ With this in mind, the adoption of national digital IDs can have a transformative effect on financial inclusion and allow countries with high numbers of undocumented populations to leapfrog into biometric IDs.

Globally, digital IDs are becoming more common, and almost 3.2 billion people currently have some form of digital identification.⁵⁰ However, several challenges remain since almost one billion people globally live without any proof of identity due to limited access to digital infrastructure and public services.⁵¹ According to data from the World Bank ID4D initiative, there are 436 million unregistered people in Asia and the Pacific,⁵² two-thirds of whom are in Bangladesh, India, and Pakistan. Furthermore, one-third of countries in the region have low registration rates among children under the age of five, ranging from 13 per cent in Papua New Guinea to 84 per cent in the Marshall Islands, with an average of 65 per cent (Figure 3). While many countries have made progress in birth registration over the past two decades — India nearly doubled its registration rate from 41 per cent to 80 per cent in the ten years from 2005 to 2015 — others have not kept pace, with registration stalling and/or declining in Lao PDR.^{53 54}

⁴⁹ Arner, Buckley, Zetsche (2018). *Fintech For Financial Inclusion: A Framework for Digital Financial Transformation*.

⁵⁰ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

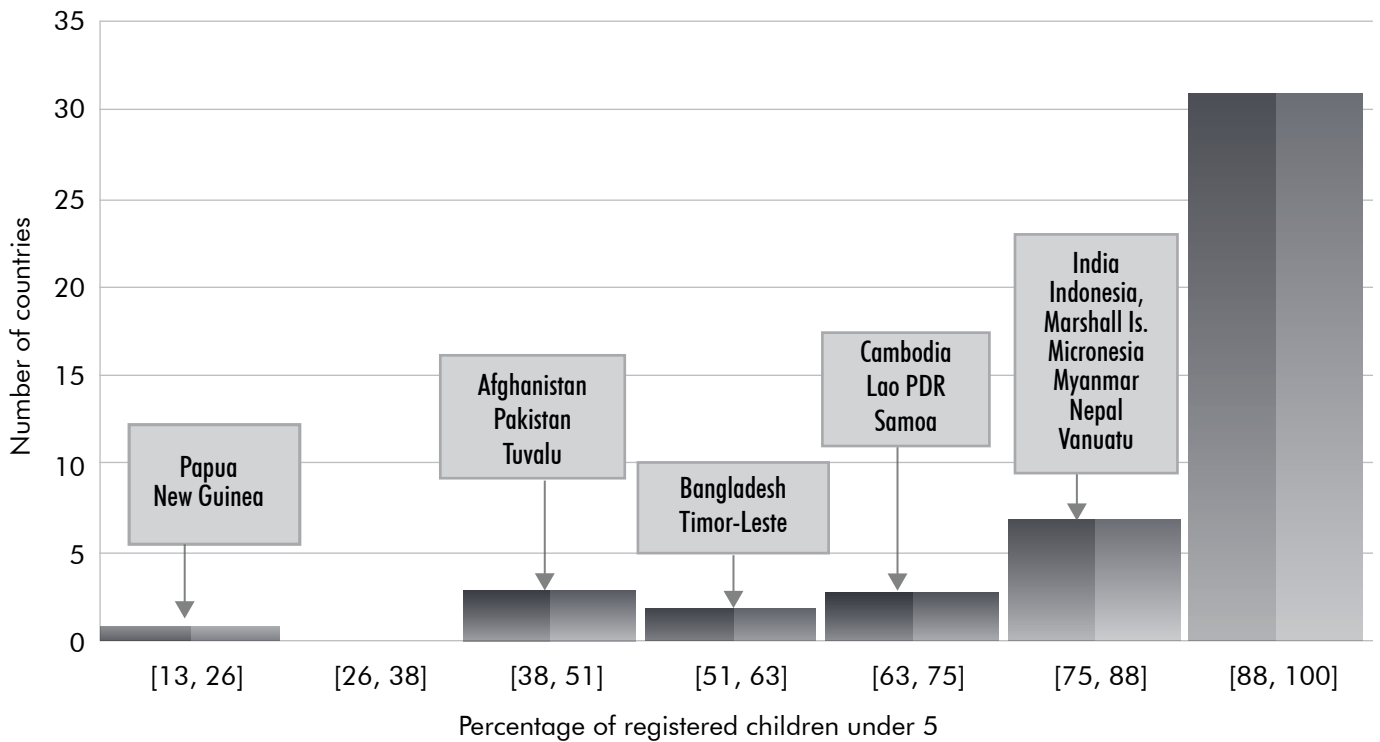
⁵¹ See Desai V. T., Diofasi A., Lu J. (2018). *The Global Identification Challenge: Who Are the 1 Billion People Without Proof of Identity?* World Bank Blogs.

⁵² Asia and the Pacific are defined as part of the ESCAP Members and Associated Members.

⁵³ UN Children's Fund (2019). *Birth Registration for Every Child by 2030: Are we on track?*

⁵⁴ The World Bank (2018) estimates it at 39 per cent.

Figure 3: Distribution of the percentage of children under five that are registered across Asia-Pacific countries



Source: ESCAP.

A common problem is that paper-based processes require families to make multiple visits to different offices to register vital events. For low-income and remote populations, this can be expensive and time-consuming, while ethnic and migrant communities often face legal hurdles. In the case of Myanmar, research has shown that the descendants of migrants and some ethnic communities are denied access to identification

due to discriminatory citizenship laws.⁵⁵ Additionally, the costs incurred by birth registration travel means that boys are often prioritized for birth registration over girls in low-income households, owing to the increased likelihood that they will require the identification for work later in life.⁵⁶ Box 1 illustrates the challenges and opportunities to improve civil registration and vital statistics (CRVS) systems in the case of Lao PDR.

Box 1: How to develop effective digital identities while architecture is still in the design phase?

A key enabler of G2P payment systems is the presence of a digital identity system to compare individuals' credentials across different databases/registries and to verify individuals' identities at the time of the cash payments. Having the entire population registered in a functional and effective Civil Registration &

Vital Statistics (CRVS) system greatly simplifies the onboarding of beneficiaries into any form of social transfer program. The incorporation of digital identities into a CRVS system significantly enhances the authentication of individuals, in real time.

⁵⁵ UNCDF (2020). An Assessment of Regulatory Constraints and Enablers to Women's Financial Inclusion in Myanmar.

⁵⁶ Ibid.

A key enabler of G2P payment systems is the presence of a digital identity system to compare individuals' credentials across different databases/registries and to verify individuals' identities at the time of the cash payments. Having the entire population registered in a functional and effective Civil Registration & Vital Statistics (CRVS) system greatly simplifies the onboarding of beneficiaries into any form of social transfer program. The incorporation of digital identities into a CRVS system significantly enhances the authentication of individuals, in real time.

Lao PDR currently lags behind in terms of effective and comprehensive CRVS; the infrequency of birth and death registration means social targeting interventions and critical social services such as education, health, and financial services may be inaccessible to much of the population.^a The civil registries remain largely paper-based and decentralized. This is the responsibility of the Ministry of Public Security, which maintains two forms of identification: the Family book, deemed universal, and the National ID Card.

Source: UNESCAP (2021). Enhancing capacities on digital G2P and G2B transfers and digital international remittances in Lao PDR.

^a World Bank (2020). Lao PDR Civil Registration and Vital Statistics Project Appraisal.

^b UNESCAP (2021). A New Tool to Help Register Every Birth and Death.

In 2011, the Ministry of Home Affairs was tasked with the mandate to register births and deaths. The CRVS Strategy for 2016-2025 requires a unique identification number (UIN) to be assigned at birth. It allows data stored in the national civil registry to be linked with management information systems belonging to other ministries such as: family books, national identity cards, district health information software, the civil service, social registry, pensions, social security, passports, transportation or driver's licenses, taxes, health care, finance, education, voter rolls, and immigration. This system will facilitate the implementation of social protection programs.

To help governments strengthen their civil registration and vital statistics (CRVS) systems, ESCAP and its development partners recently launched a new tool to support CRVS stakeholders in analyzing and redesigning existing processes to improve their CRVS system's performance.^b

In Asia and the Pacific, multiple countries have adopted digital ID programmes and benefited from their transformative effect on financial inclusion and economic growth. One notable example is India's Aadhaar system, operated by the Unique Identification Authority of India (UIDAI). The Aadhaar system allows residents of India to apply for a voluntary 12-digit randomized number. The number can be used to verify a person's identity and gain access to public services, banking and insurance, and social benefits.⁵⁷ With more than 1.2 billion people now registered in the biometrically secure system, Aadhaar has already proven to be extremely useful for streamlining KYC checks by financial institutions, facilitating access to and reducing costs of basic financial services.

Moreover, Aadhaar has helped to prevent fraud and corruption by digitizing public welfare payments.⁵⁸

In light of Aadhaar successes, other countries in the region are developing similar systems – many with the support of the World Bank's ID4D (Identify for Development) initiative. According to the World Bank, more than half of ASEAN members have foundational digital ID systems, including Brunei Darussalam, Malaysia, Singapore, and Thailand. Others, such as Indonesia and the Philippines, are in the process of developing systems.⁵⁹ Beyond ASEAN, China — in addition to India — has been a leader in the global trend towards advancing national sovereign identification. Among recent digital ID initiatives, the

⁵⁷ Arner, Buckley, Zetzsche (2018). Fintech For Financial Inclusion: A Framework for Digital Financial Transformation.

⁵⁸ Ibid.

⁵⁹ GSMA (2019). News Flash: Digital ID Now Widespread in South East Asia; International Bank for Reconstruction and Development, The World Bank (2019). The Digital Economy in Southeast Asia: Strengthening the Foundations for Future Growth.

Philippines has rolled out a national ID system called PhilSys. The goal of the system is to provide better access to public services and financial institutions to unbanked and underserved working-class segments of the population in the Philippines. Bangladesh has also recently initiated a digital identity project in partnership with ID2020. One goal of the project is to provide children with biometrics-backed digital IDs to increase their access to healthcare,⁶⁰ highlighting how sovereign digital IDs can function as a critical tool to unlock access to a broad range of public and private services.

Beyond sovereign digital IDs, many countries have undertaken alternative solutions, such as e-KYC and tiered KYC systems, to facilitate financial inclusion. The Financial Action Task Force (FATF) recognizes that “proportionate, risk-based AML/CFT controls may be applied to products or services intended to support financial inclusion, based on the nature and the level of assessed money laundering or terrorism financing risks associated with these products or services. The products and services provided to newly banked

people are often entry-level products and services with limited functionality or with restricted use.”⁶¹ These are typically basic mobile money products with capped limits to wallet holdings and transfers. As a result, countries can use a tiered KYC approach with basic identification requirements, such as a phone number, for an account with a low financial limit, to more advanced tiers requiring further forms of identification to meet KYC and CDD requirements.

In the case of Bangladesh, for example, the Bangladesh Financial Intelligence Unit (BFIU) issued a set of Guidelines on e-KYC in December 2019, in which all financial and non-bank financial institutions were expected to comply with by December 2020. The guidelines noted that based on e-KYC testing undertaken by BFIU with financial institutions in the pilot phase, customer onboarding was reduced from four to five days to five to six minutes, and the cost of customer onboarding and KYC verification was reduced between five and 10 times, thus providing both a business case and regulatory justification for promoting such digitalization initiatives.

3. DIGITAL FINANCE OFFERINGS AND SOLUTIONS IN ASIA AND THE PACIFIC

The digital rails discussed in the previous section are the foundations of various digital finance offerings and solutions. In Section 2, we presented an overview on how digital finance can support the achievement of the SDGs. In this section, we discuss in more detail some digital finance offerings and solutions that support the achievement of specific SDGs.

3.1. Cross-border Remittances

SDG target 10.c aims to reduce the transaction costs of migrant remittances by less than 3 per cent by 2030. Cross-border remittances often function as a critical lifeline for low-income households, particularly amid the economic recession brought on by COVID-19.

The three largest recipients of remittances in Asia and the Pacific are India (USD \$62 billion), China (\$61 billion), and the Philippines (\$30 billion).⁶² Relative to GDP, remittances form a significant share for Small Island Developing States — such as Tonga (37 per cent of GDP) or Samoa (18.6 per cent) — as well as in landlocked developing countries, such as Kyrgyzstan (28.4 per cent) and Tajikistan (26.7 per cent).⁶³

The cost of remittances varies across countries. For instance, in Samoa and Tonga, the most remittances-dependent country in the region, transaction costs for a \$200-remittance are nearly 10 per cent — among the most expensive globally. On the other end of the spectrum, the cost of remittances from the Russian

⁶⁰ Burt C. (2021). ID2020 and Bangladesh Government Issue RFP for Biometrics-Linked Healthcare Digital ID. Biometric Update.

⁶¹ FATF Guidance (2017).

⁶² UNESCAP (2017). Digital and Virtual Currencies for Sustainable Development. Working Paper.

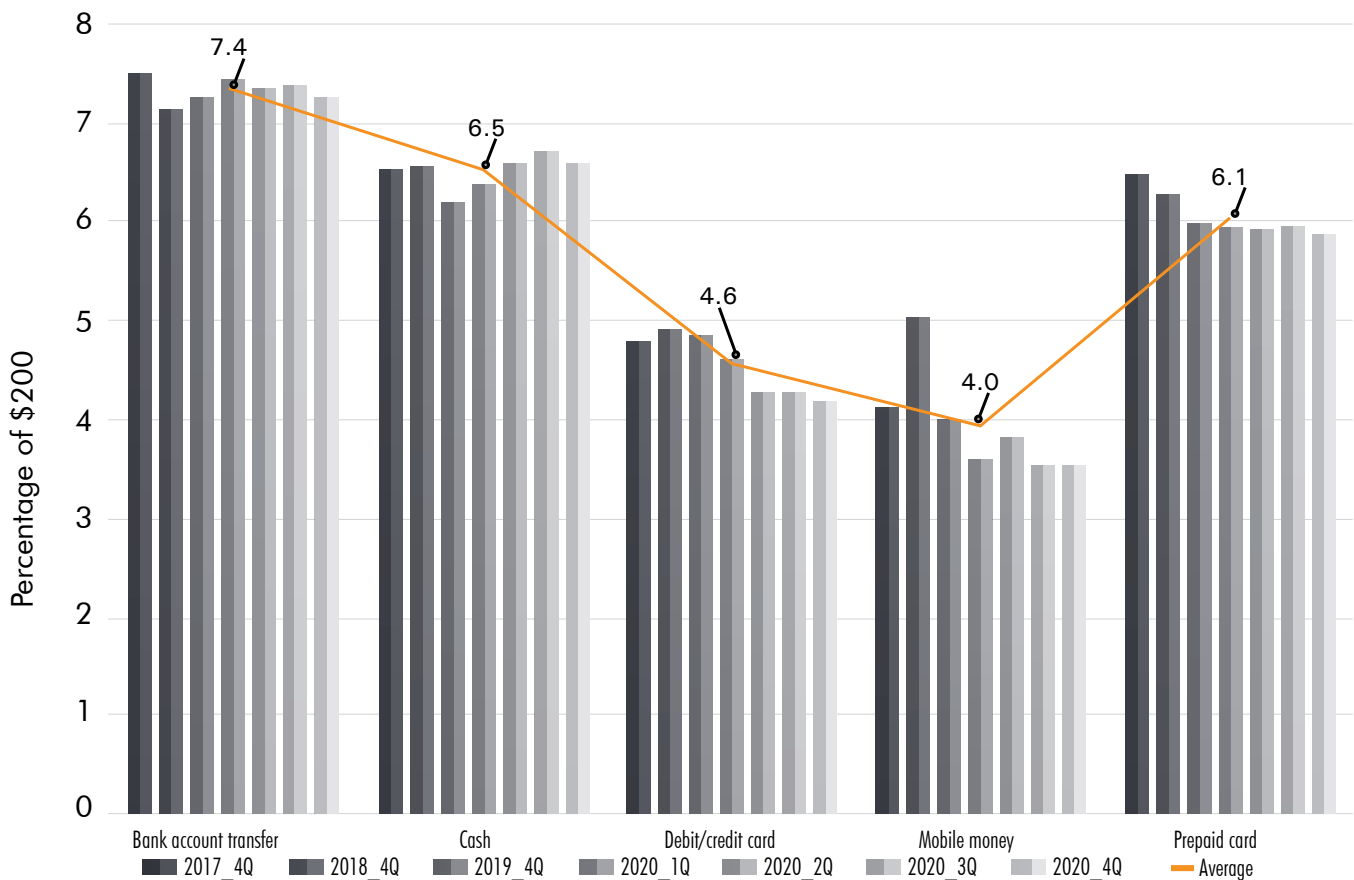
⁶³ World Bank (n.d.). Personal Remittances data. (Accessed August 2021).

Federation to former Soviet republics is around 2 per cent for a remittance of \$200. Because of the high cost of remittances through formal channels, many low-income remitters rely on informal channels to send funds home to family members, but this puts their funds at risk of theft or losses. Among the formal payment instruments to deliver cross-border remittances, mobile money has the lowest average cost at 4 per cent for a remittance of \$200, while bank transfers and cash cost 7.4 per cent and 6.5 per cent, respectively (Figure 4).

The potential of the market for cross-border digital remittances has attracted interest by both governments and private businesses. The rapid pace of initiatives are transforming what was previously a costly and

opaque element of the financial landscape. Remittance hub aggregators such as Singapore's Thunes, which uses a plug-and-play model with API connection to a network of financial institutions and payment providers globally, allows for seamless and cost effective remittances, as well as cash pick-up options in more than 106 countries globally. Furthermore, in the case of Cambodia, for example, the National Bank of Cambodia in October 2019 signed an MOU with Maybank Malaysia to promote cross-border payment and remittances through both parties' payment systems and digital platforms,⁶⁴ which was launched in August 2021.⁶⁵ In November 2019, MoneyGram, one of the world's largest money transfer companies, teamed up with Wing, Cambodia's leading mobile banking

Figure 4: Average cost of sending international remittances for \$200 or equivalent, by payment instrument



Source: ESCAP based on data from World Bank, Remittance Prices Worldwide. (Accessed February 2021).

⁶⁴ See National Bank of Cambodia (2019). MOU Between NBC and Maybank to Promote a Collaboration in the Area of Cross Border Payment And Remittance Between Cambodia And Malaysia.

⁶⁵ Techwire Asia (2021). Real-time mobile funds transfer between Malaysia and Cambodia now a reality.

service provider, to offer a new service that will allow customers to receive funds directly into their mobile wallets.⁶⁶ And in July 2020, AMK Microfinance Institution Plc and Hong Kong-based global financial settlement network EMQ Ltd formed a partnership agreement to streamline cross-border money transfers across Southeast Asia.⁶⁷ In a recent development, the Monetary Authority of Singapore and the Bank of Thailand launched the world's first linkage of real-time payment systems, which allows users of the two countries' payment systems — PayNow in Singapore and PromptPay in Thailand — to send money across countries directly through their mobile phones currently with no transfer fee in place, thus making it simple and affordable for users. A similar agreement between the payment systems of Thailand and Malaysia (DuitNow) will allow cross-border payments and e-commerce transactions using QR-codes.⁶⁸

Significant progress has been made in the last few years, due to digitalization, in developing instant, low cost remittances globally. The formalization of remittance is critical, not only to allow safe and affordable last-mile access but also to reduce illicit financial flows. In the Mekong region alone it is estimated that transitioning informal remittance to formal channels has the potential to add US\$ 6-17 billion to the formal remittance market, which outpaces the US\$ 6.8 billion of ODA inflows in the region.⁶⁹

The solutions and trends mentioned above are indicative of the future of remittances. The case of Singapore and Thailand is one that can be replicated across other countries in the Asia-Pacific region, with central banks collaborating to open corridors that ease the flow of regulated, low-cost digital remittances. However, the time and cost of such bilateral agreements can be high, therefore regional blocks such as ASEAN and their relevant working groups can take on these examples

to deliberate on multi-country solutions specifically in the consistency of the application of AML/CFT requirements. Furthermore, private sector payment providers have already developed the infrastructure for such transitions, therefore investment in new public infrastructure is not necessarily required. Regulatory sandboxes and collaboration among regulators should be prioritized to enable innovation, while maintaining vigilance and compliance of cross border financing flows.

3.2. Digital Financing for MSMEs

SDG target 9.3 aims to increase the ability of small-scale industrial and other enterprises, in particular in developing countries, to access financial services such as affordable credit. To make decisions regarding credit provision for companies and individuals, traditional financial institutions engage in credit risk assessment, a somewhat slow and costly process that requires customers to have sufficient credit history. Considering that many MSMEs do not have a credit history, banks rely on collateral as the cheapest alternative to credit risk management.⁷⁰ Often collateral comes in the form of land or movable assets. However, since collateral is often limited or not available in developing countries where property rights and their institutional enforcement may be underdeveloped, MSMEs often lack access to institutional financing. This is particularly challenging for small and medium enterprises whose financing requirements are too large for microfinance offerings, but too risky for commercial banks or investors – this credit gap is called the “missing middle.”

Limited access to financing is an important obstacle for MSMEs to grow, develop, and withstand crises.⁷¹ According to the World Bank, around 40 per cent of MSMEs in developing countries have unmet financing needs that prevent their business development and

⁶⁶ Khmer Times (2019). MoneyGram and Wing to Launch a New Mobile Wallet Service in Cambodia.

⁶⁷ Kunmakara M. (2020). AMK, HK Firm to Boost SEA Cross-Border Cash Transfers. Phnom Penh Post.

⁶⁸ Medina A. F. (2021). Malaysia and Thailand Launch QR Payment Linkage. ASEAN Briefing.

⁶⁹ UNCDF (2017). Remittances as a driver of women's financial inclusion in the Mekong region.

⁷⁰ Arner, Buckley, Zetsche (2018). Fintech For Financial Inclusion: A Framework for Digital Financial Transformation.

⁷¹ The World Bank (n.d.). Small and Medium Enterprises (SMEs) Finance.

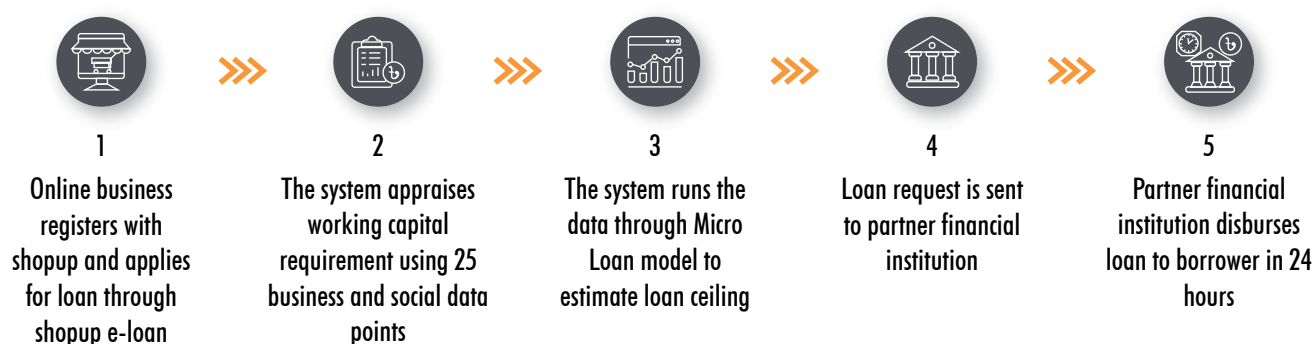
hamper long-term economic growth.⁷² This problem is particularly important in Asia-Pacific where MSMEs employ, on average, around 70 per cent of the total workforce and contribute to 42 per cent of the regional GDP.⁷³ Despite their economic importance, MSMEs in the region receive only 16.9 per cent of the total institutional lending.⁷⁴ In response to this gap, numerous public initiatives have been implemented to increase MSME financing. For example, Indonesia launched a public credit guarantee scheme called People's Business Credit (Kredit Usaha Rakyat), which provides MSMEs with a partial credit guarantee that covers 70 to 80 per cent of the loan loss risk for banks.⁷⁵ The Philippines also adopted a strategy to facilitate MSME financing by requiring banks to have at least 10 per cent of their total loans in MSME credit.⁷⁶

In addition to these conventional initiatives, fintechs and banks have leveraged technology to provide accessible and affordable loans to MSMEs. By accumulating data on MSMEs from e-commerce sites and other digital platforms, traditional financial institutions and fintechs can rapidly evaluate credit risks and provide MSME financing without collateral, or with limited or alternative collateral such as inventory.

In China, MYbank has used such data to streamline risk management and provide credit approvals within minutes of application. As of June 2019, MYbank has provided over US \$290 billion in loans to 17 million SMEs in China, with only a 1 per cent non-performing loan ratio.⁷⁷ Similarly, major fintech companies such as Tencent Credit, Sesame Credit, and Ant also established credit scoring services that rely heavily on alternative sources of data.⁷⁸

Similar developments can be found in other parts of Asia. In Thailand, Siam Commercial Bank created SCB Abacus, a data-tech subsidiary that uses data analytics to provide credits for borrowers with limited credit history.⁷⁹ In India, start-ups like Tala Mobile use behavioural data from mobile phones to determine credit risks and provide loans to people without formal credit history. Other start-ups like Lenddo and CreditVidya provide similar services by using geolocation and psychometric data. Further, Japan has a national alternative credit risk platform, Japan's Credit Risk Database. The database is populated with anonymized financial data on SMEs which allows financial institutions to streamline credit risk modelling.⁸⁰

Figure 5: How does ShopUp E-loan work?



Source: ESCAP based on ShopUp Bangladesh.

⁷² Ibid.

⁷³ Asian Development Bank (2020). Country and Regional Reviews. Asia Small and Medium-Sized Enterprise Monitor.

⁷⁴ Ibid.

⁷⁵ International Labor Organization (2019). Financing Small Businesses in Indonesia: Challenges and Opportunities.

⁷⁶ Asian Development Bank (2017). Accelerating Financial Inclusion In South-East Asia With Digital Finance.

⁷⁷ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

⁷⁸ Nemoto N., Yoshino N. (2019). Fintech for Asian SMEs. Asian Development Bank Institute.

⁷⁹ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

⁸⁰ Nemoto, Yoshino (2019). Fintech for Asian SMEs.

Another example is ShopUp Bangladesh. ShopUp utilizes data from 25 different sources to appraise the credit eligibility of small businesses operating on Facebook. Its system automatically manages sales and keeps track of the firm growth trajectory, inventory cycle, and customer retention rate. ShopUp also offers training programmes in areas such as: starting an online shop, diversifying the range of products offered, communications management, delivery, payment, promotion, choosing the right content and packaging, and shop management. Figure 5 illustrates the role ShopUp plays as an intermediary between businesses and financial service providers.

ShopUp's e-loan allows businesses to obtain a working capital loan for 3 to 12 months with zero collateral, and interest rates from 7 per cent to 24 per cent maximum, provided by ShopUp's banking partners. ShopUp charges microfinance institutions a flat fee of 6-8 per cent for its services, much lower than the 18-20 per cent appraisal costs they currently incur. As of September 2019, ShopUp has facilitated unsecured credit access to 1,062 MSEs valued at US \$1.4 million.⁸¹

In sum, digital technologies can play a significant role in facilitating digital and traditional financing for MSMEs.⁸² Specifically, companies can accumulate data from multiple sources such as social media websites, e-commerce platforms, geolocators, and other software and hardware-based sources of data. This data can help fintechs to streamline credit risk assessment, develop psychometric risk assessment and remove collateral requirements, thus increasing access to financial services for MSMEs. Recent research on China suggests that credit risk assessments using big data and machine learning models yield better predictions of loan defaults during both normal times and periods of large exogenous shocks.⁸³ However, the quality of such credit assessments depends critically on the quality of the data and the algorithms used. While algorithms are

proprietary and difficult to regulate, regulators should consider standards to minimize adverse, predatory and/or discriminatory impacts on clients. Furthermore, while such data driven solutions can be used to promote financial inclusion such access to personal and psychometric profiles does not come without risk. Thus, regulating the collection and use of such data is a critical issue for policymakers to consider. Finally, the digital nature of such lending platforms allows for additional opportunities such as ensuring disclosures are known and understood by clients or enabling access to financial literacy content or courses. Such options can be made easily available and streamlined when needed, for example in highly over indebted markets.

3.3. P2P Lending and Crowdfunding

P2P lending platforms allow investors to directly fund small loans for individuals and MSMEs. They allow users to quickly raise funds for financial emergency relief or long-term business development,⁸⁴ and offer more accessible investment opportunities for small-scale investors. In Asia-Pacific, P2P lending has grown rapidly in countries including India, Indonesia, China, Malaysia, Australia, and Singapore. Companies like Lendbox (India), Investree (Indonesia), and CapBay (Malaysia) connect borrowers and individual investors and provide other services like credit risk and borrower trustworthiness assessments.⁸⁵ Depending on the platform, P2P companies can offer MSME loans for business growth, individual loans for the purchase of goods or services, equity-based crowdfunding, and other types of financing. Additionally, some international crowdfunding platforms like GoFundMe can offer donations rather than loans that need to be repaid. Such donations can be used to finance education, healthcare, or emergency relief for platform users.⁸⁶

⁸¹ United Nations ESCAP (Forthcoming). Best Practices and Solutions for Unsecured Lending: Advancing Collateral Alternatives for MSMEs in Cambodia's Financial Market.

⁸² United Nations ESCAP (2021). Rethinking MSME Finance in Asia and the Pacific: A Post-Crisis Policy Agenda.

⁸³ NYiping Huang, Longmei Zhang, Zhenhua Li, Han Qiu, Tao Sun, and Xue Wang (2020). Fintech Credit Risk Assessment for SMEs: Evidence from China. IMF Working Paper WP/20/193.

⁸⁴ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020); Kulish, N., 'People Need Immediate Relief,' and Online Donors Make It Happen. New York Times.

⁸⁵ Jao N. (2019). Chinese P2P Lending Platforms Look to Southeast Asia Amid Industry Purge Back Home. Technode.

⁸⁶ Salze-Lozac'h V., Warren A. (2015). Financial Inclusion for Asia's Unbanked. The Asia Foundation.

The market capitalization of P2P lending varies across Asia-Pacific and depends on the type of lending. For example, Japan and Indonesia lead P2P business lending with a market capitalization of \$880 million in Japan and \$600 million in Indonesia. Hong Kong, China and the Republic of Korea lead equity-based crowdfunding with an average capitalization of \$35 million each.⁸⁷ For a long time China was a leader in alternative financial markets, with a total market volume of \$215 billion mostly attributed to P2P consumer lending.⁸⁸ However, a lack of robust regulatory standards and sufficient investor knowledge led to fraudulent P2P lending and high P2P default rates.⁸⁹ Multiple P2P platforms operated Ponzi schemes with companies like Ezubao causing billions in losses.⁹⁰ In response to these issues, China imposed strict regulations on P2P lending platforms in an effort to protect consumers and reduce fraud.⁹¹ The result of this regulatory reform led to a drastic reduction in the number of P2P platforms from 6,000 to less than 10.⁹²

In sum, while P2P platforms can contribute to financial inclusion and economic development, client protection remains a serious concern for borrowers in this space. The lack of appropriate regulatory standards and comprehensive legal frameworks remain a key concern, with regulators struggling to keep up with the pace of technology and innovation. Lack of such standards and enforcement mechanisms can lead to the proliferation of fraudulent or excessively risky P2P investment offerings. This, in turn, can exacerbate the economically vulnerable position of individuals and MSMEs and have a negative effect on broader economic development. To mitigate the risks of P2P lending, regulators will need to adopt and enforce appropriate policies such as licensing and reporting requirements for P2P platforms. Furthermore, as mentioned above regulations and standards on data protection are also required in this space.

3.4. Aggregation of Micro-savings to Finance the SDGs

More recently, the TDF report discussed the possibility of setting up a platform for the aggregation of micro-savings for the financing of sustainable infrastructure projects or other SDGs in Bangladesh.⁹³ The concept is shown in Figure 6. The idea is to set up a fintech platform that allows domestic savers to choose SDG projects they wish to invest in. This approach could both deliver significant reductions in the cost of capital and provide interest income or dividends to Bangladeshi citizens that invest in the platform. The investments could be targeted to roads, bridges, sanitation systems, hospitals, renewable energy, climate adaptation, or even the expansion of broadband Internet to rural areas, thus covering a range of SDGs in selected local areas of the country. Savers living in the area or diaspora communities with relatives in the area could be interested in such investments beyond the interest or dividends that they could receive from them. This is an idea worth considering by policy makers, development partners, and NGOs.

⁸⁷ Seredenko A. (2021). Crowdfunding in Asia: What Countries are Leading the Game? LenderKit.

⁸⁸ Ziegler, Shneur, Zhang (2020). The Global Status of the Crowdfunding Industry.

⁸⁹ Leng C., Tham E. (2019). In China, P2P Insiders Say Regulatory Shortcomings Have Choked Industry, Reuters; See generally Ding C., Kavuri A.S., Milne A. (2020). Lessons From the Rise and Fall of Chinese Peer-To-Peer Lending. Journal of Banking Regulation.

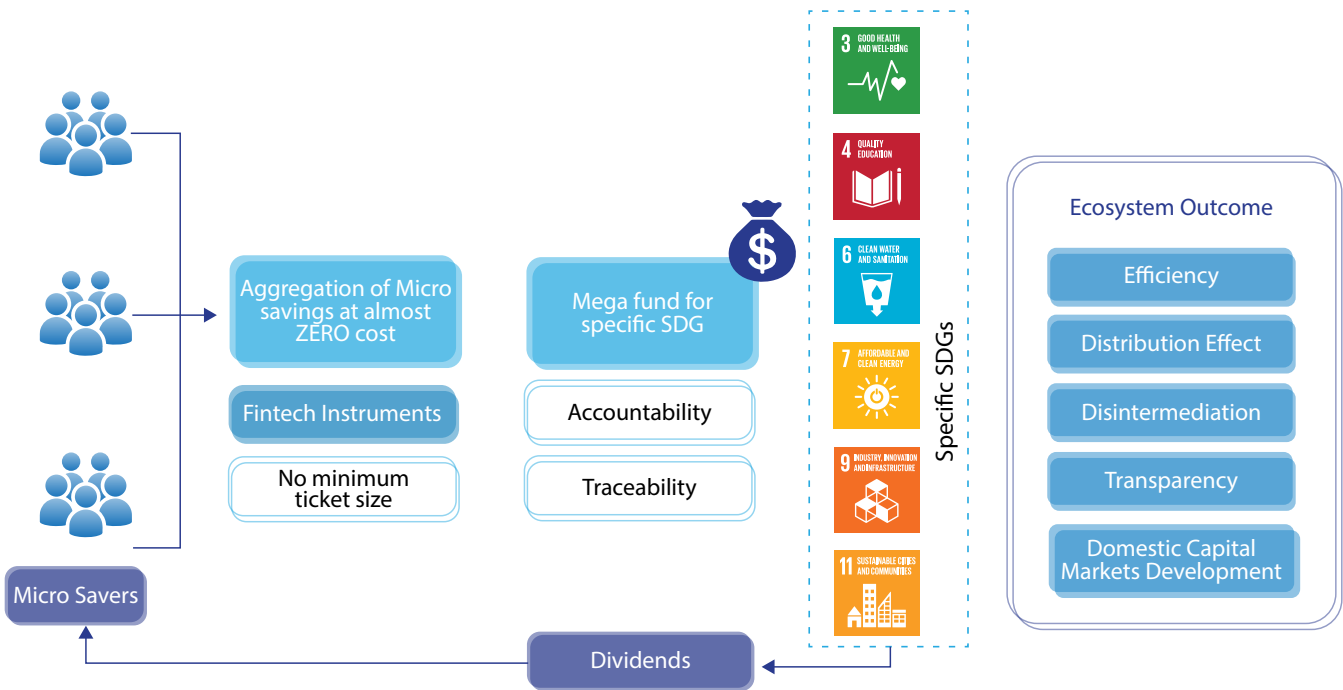
⁹⁰ Tattersall M. (2020). Chinese Regulators Estimate That Their P2P Lending Crackdown Resulted In \$115 Billion In Losses For Investors. Business Insider.

⁹¹ Reuters (2019). China Gives P2P Lenders Two Years to Exit Industry: Document. Reuters.

⁹² Ibid.

⁹³ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

Figure 6: Using a fintech platform to aggregate micro-savings to finance the SDGs- An example



Source: ESCAP based on the United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

3.5. Digital Insurance

Another digital finance solution which holds promise for economic development and financial inclusion is digital insurance. Start-ups, BigTech companies, and incumbent financial institutions are starting to offer innovative digital insurance products that can leverage data to reduce insurance premiums and improve insurance accessibility for low-to-middle income individuals and MSMEs. For example, Tencent and its insurance company, WeSure, developed free COVID-19 insurance products for Chinese citizens.⁹⁴ Similarly, ride-hailing app Grab recently partnered with ZhongAn International, a Chinese insurance company, to offer affordable digital insurance in Southeast Asia.⁹⁵ Considering that Grab has a high market penetration in the region and their app offers an array of services including digital payments, Grab can utilize its mobile wallet popularity to offer accessible insurance for under-served GrabPay users.

Digital climate and disaster risk insurance products are also solutions that are being developed and tested. Such products are critical for individual household and business recovery. The Pacific, for example, is “among the most vulnerable in the world facing many natural hazards, such as cyclones, earthquakes, tsunamis and volcanic eruptions, whilst having limited means to prepare and respond to them.”⁹⁶ To address these risks, the Pacific Insurance and Climate Adaptation Programme was launched by a partnership between the United Nations Capital Development Fund (UNCDF), United Nations Development Programme (UNDP), and United Nations University Institute for Environment and Human Security (UNU-EHS). The initiative will “pilot, test and scale climate disaster risk financing instruments such as parametric insurance that will offer immediate post-disaster pay-outs to those insured.”⁹⁷ Parametric options are innovative as they issue pay-

⁹⁴ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

⁹⁵ Abbas R. (2019). Grab Ready to Deliver Insurance to the Masses. Asia Insurance Review.

⁹⁶ United Nations Children’s Fund (UNICEF) (n.d.). Disaster Risk Reduction and Emergencies.

⁹⁷ UNCDF (2021) ‘It’s A Game Changer’: Partners Await Launch of Pacific Region’s First-ever Parametric Insurance Scheme.

outs when the disaster hits, reducing arduous claim processes and uncertainty among insurance clients who require funds immediately.

Similar to digital credit offerings, digital insurance companies can utilize data to streamline premiums calculations and claims approvals. Considering that digital insurers in the regions often offer multiple services such as digital payments, companies can leverage their ability to accumulate or, alternatively, purchase data, to design insurance services which meet client needs and can be offered at a low premium.

3.6. Digital Technologies and the Public Sector

The digitalization of the public sector is another promising area where digital technologies can contribute to sustainable development and financial

inclusion. It could include the digital provision of public procurement, land and housing management, court case management, enrolment in education, tax, and other services.⁹⁸ Several countries in Asia and the Pacific have adopted robust e-government systems. One example is Malaysia's Government Online Services Gateway, an integrated platform that allows the Malaysian government to offer 90 per cent of its services online.⁹⁹ Such platforms play an important role in facilitating access to essential public services and reducing the cost of their provision.¹⁰⁰ In addition, during the COVID-19 pandemic, digital technologies were instrumental for governments to deliver social transfers in an expedient and efficient manner (Box 2).

Box 2: Delivery of emergency social protection to vulnerable people during the COVID-19 pandemic

The COVID-19 pandemic provided a test to the ability of social protection systems in the region to respond effectively to a major emergency. Nearly every country in the world has delivered some form of social protection support since the start of the pandemic. The World Bank estimates that of the \$12.6 trillion spent in stimulus packages globally in 2020, \$800 billion, or 6.3 per cent, went to social protection.^a These programmes can be categorized as social assistance, social insurance, or labour market protections. Social assistance refers to programmes like cash transfers, which were delivered in 164 countries. The kind of programmes delivered during the pandemic varied according to the degree of development of the countries. In LICs, social assistance – mostly cash transfers – made up 89 per cent of the total government response. In high-income countries (HICs), social assistance was only 48 per cent of the total response, the rest being social insurance and labour market programmes. The coverage of cash transfer programmes varied across countries, reaching 100 per

cent of the population in Tuvalu and the Republic of Korea.

Digitalization is a key factor in the design, delivery, and speed of social protections in Asia and the Pacific. The digital delivery of G2P payments has rapidly expanded in the region. Even before the outset of the pandemic, proponents of the digitalization of government payments noted that digitalization can reduce costs and increase efficiency and transparency, while boosting financial inclusion.^b In the context of the pandemic, the digitalization of social protection has further advantages in that it limits the need for in-person delivery of cash assistance and point-of-service withdrawal. As a result, the pandemic has prompted the rapid expansion of digital G2P payments in Asia and the Pacific. In 2020, new or expanded digital G2P payments reached hundreds of millions of individual beneficiaries in the Asia Pacific region.

⁹⁸ Choi, J. and Xavier, J. (2021). Digitalization of Public Service Delivery in Asia. Asian Productivity Organization.

⁹⁹ Ibid.

¹⁰⁰ Surprisingly, some of the more developed countries have experienced difficulties in adopting integrated e-government platforms, see for example a case of Australia in Hanson F., Ott A., Krenjova J. (2018). Introducing integrated E-Government in Australia. Australian Strategic Policy Institute.

The case of Cambodia

Cambodia's National Social Protection Policy Framework, launched in 2017, brought together 17 ministries with a role in the country's social protection to ensure effective coordination in policy framing and implementation. However, implementation challenges remain as most ministries until recently continued to work in a siloed manner.

Under Cambodia's IDPoor system, the Ministry of Planning supported by multilateral and bilateral aid agencies (such as the United Nations Development Program, and GIZ) applied a proxy means test to identify poor families. Each family identified as poor was issued

an Equity Card separate from the National ID.^c During COVID-19, the government realized that the IDPoor database — which was used pre-COVID for conditional cash transfers and transfers to pregnant women — needed to be updated because in the first round of transfers, there were nearly 30,000 people who did not claim benefits. Migration was identified as a key reason for this. The provinces normally update the database every two years. To ensure that this was done rapidly, the government switched from a paper-based system of recording and used tablets to collect data resulting in near real-time database updating. Between June 2020 and August 2020, the list of beneficiaries identified under the IDPoor category increased from 530,000 to 669,000 households.

Source: UNESCAP (2021), G2P and International Digital Remittances During COVID-19: Early Lessons from Cambodia.

^a World Bank (2020), Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures (Washington D.C., World Bank).

^b Loera Klapper and Dorothe Singer (2017) The Opportunities and Challenges of Digitizing Government-to-person Payments (Washington D.C., The World Bank Research Observer).

^c More details on the IDPoor can be sourced from <https://www.idpoor.gov.kh/>.

The digital provision of public services can also help to improve fiscal transparency.¹⁰¹ For example, digitalization of public services can allow citizens to monitor public procurement and spending thus helping to reduce economic losses from government corruption or mismanagement.¹⁰² Similarly, initiatives like Open Government Data, adopted by countries such as Canada, require governments to publicly publish a broad range of information on spending, budget initiatives, healthcare measures, and climate indicators, and have the potential to significantly increase transparency and visibility in the public sector.¹⁰³

Additionally, digitalization can enhance the collection of tax revenues for income tax and indirect taxes. For example, for cross-border digital businesses Australia

has proposed to tax some businesses on the basis of gross advertising revenues and shift taxes away from corporate net income.¹⁰⁴ Furthermore, digitalization and data is allowing for more transparency, which tax authorities can use to undertake better compliance monitoring and benchmarking.

Overall, with these considerations in mind, the adoption of convenient, open, and integrated e-government platforms can play an important role in the long-term economic development and accessibility of public services.

¹⁰¹ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

¹⁰² Transparency International (2020) Corruption Remains a Major Problem in Asia, Damaging Trust in Government, Survey Finds.

¹⁰³ Bjerde A., Demirgüç-Kunt A. (2021). Digitalization and data can vastly improve public service delivery for citizens. World Bank Blogs.

¹⁰⁴ Gillis, Tim (n.d.). Digitized tax collection is impacting tax departments. Tax departments are embracing technology for digitized tax collection. KPMG.

4. DIGITAL FINANCIAL SERVICES BARRIERS AND RISKS

To leverage the benefits of technology for financial inclusion and the attainment of the SDGs, policy makers and regulators will need to address risks and barriers related to digitalization. As was highlighted in the DFTF report, such barriers and risks can be infrastructural, institutional, economic, and social.¹⁰⁵

4.1. Barriers

Barriers to the digitalization of financial services include (i) lack of access to digital technologies; (ii) digital and/or financial illiteracy; (iii) lack of access and usage of affordable and secure digital financial services such as mobile money accounts and financing platforms; (iv) limited interoperability between different service providers; (v) talent shortages due to limited access to training in information and telecommunication technologies; and (vi) weak regulatory oversight. The most critical barrier to digital finance is the lack of access to digital technologies, which was discussed extensively in Section 3.1 above. The rest of this section briefly discusses the other barriers.

The second barrier is capability gaps that affect access to digital technologies for vulnerable groups.¹⁰⁶ Such gaps include lack of digital and financial literacy, which are often a result of extreme poverty. Additionally, restrictive gender norms is a major factor that can inhibit access and agency over household digital devices and digital finance accounts. Such norms can also impact women's ability to access identification, land titles and other documentation which is needed for customer due diligence processes when registering for a financial service and collateral requirements when borrowing. Additionally, for major language groups, technology in the form of voice interfaces provides an important means to address key accessibility challenges. At the same time, lack of availability of reliable voice systems

outside of major languages increases risks of exclusion for minority language speakers.

The third obstacle is a lack of access and usage of affordable formal digital financial services.¹⁰⁷ While digital financial service providers are continuing to innovate and reach new clients, vulnerable populations continue to be left behind. This is strongly linked to the first two barriers mentioned above. Usage particularly remains a challenge that financial service providers must crack to ensure true financial inclusion. For example, in East Asia and the Pacific the number of registered mobile money accounts increased by 24 per cent in 2021 to 243 million, however of these accounts only 52 million (21 per cent) are active (used). Similarly, in South Asia, mobile money accounts reached 305 million registered users, with active accounts at only 66 million (21 per cent).¹⁰⁸ Financial and digital literacy are key to promoting digital finance usage and its associated benefits (secure savings, building a financial history, etc.)

The fourth barrier is patchy data and non-interoperable systems.¹⁰⁹ As mentioned in Section 3, limited interoperability between different service providers can negatively affect the flow of payments throughout the economy. While significant progress has been made in achieving interoperability, only half of the Asian mobile money markets are interoperable.¹¹⁰ Similar gaps can be found with regards to data on digitalization and socio-economic development in developing countries of Asia and the Pacific. A lack of sufficient data makes it harder to develop robust policies to govern digitalization and the attainment of the SDGs.

¹⁰⁵ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ GSMA (2021). State of the Industry Report on Mobile Money.

¹⁰⁹ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

¹¹⁰ GSMA (2021).

The fifth barrier is talent shortages that can hinder digital innovation and slow the growth of both the ICT and digital finance sectors in the region.¹¹¹ This problem is closely related to limited education curriculums and access to IT training in developing parts of Asia-Pacific. According to a recent survey, more than 50 per cent of CEOs in Asia and the Pacific say that it is challenging to hire digital talent.¹¹² One of the potential answers to this problem is e-education, which has grown rapidly in the region and globally.

The sixth barrier is weak regulatory oversight and incumbent resistance.¹¹³ Considering the rapid pace of digital innovation and digital finance innovations, regulatory bodies in the region may lack sufficient capacity to develop and enforce robust regulatory policies that foster innovation and address digitalization-related risks. In some markets this can allow for digital finance firms to operate in unregulated spaces, innovating but with no supervision and oversight policies in place by regulators which can result in client protection issues, while in other markets regulations may not allow room for new entrants, stifling innovation, digital and financial market development and competition. Such gaps in regulatory oversight can be further exacerbated by resistance from incumbent institutions that can use their dominant market position to stifle competition and innovation.

4.2. Risks

In addition to obstacles, the DFTF report highlights several risks that are also relevant to the Asia-Pacific region. The first risk relates to data privacy and data monopolization.¹¹⁴ Digital platforms collect and analyse large amounts of personal information such as names, identification numbers, addresses, shopping preferences, and payment details of platform users. The concentration of data in the hands of major platforms creates three issues: (i) ethical and legal limits of

data processing, (ii) data security, and (iii) data monopolization.

Regarding data processing, digital platforms are not always transparent in explaining and enforcing the rules of data collection and processing. In turn, a lack of transparency can lead to the abuse of private data by companies, such as the unauthorized sale of private information to third parties, and biases embedded in AI algorithms. According to a recent World Bank study, the use of incomplete and unrepresentative data to train algorithms may result in predictions that are “systematically worse for certain groups and perpetuate existing social inequalities.”¹¹⁵ For example, an algorithm in the United States’ eastern state of Pennsylvania, to identify children at a risk of abuse for case workers, involuntarily targeted poor families because it only used data from households that accessed public resources. Even if the data used to train algorithms is representative, if the data is based on a reality in which there are existing prejudices, the use of the algorithm can exacerbate the vulnerability of minorities. Such biases can negatively affect the financial inclusion of marginalized groups and must be addressed by sufficient regulatory oversight.¹¹⁶ The second issue is data security. Because digital platforms store large amounts of personal information, they are vulnerable to hacking and cyber theft which can expose sensitive information such as digital platform users’ debit and credit card information. Finally, the concentration of data can lead to data monopolization that can stifle competition and innovation. This problem was recently highlighted in China and the US with public antitrust actions against major tech giants such as Tencent, Alibaba, Facebook, and Amazon.

The second major risk of digitalization is digital fraud, theft, and money laundering. For example, crowdfunding platforms, digital marketplaces, and cryptocurrency exchanges are often used for illicit

¹¹¹ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

¹¹² Chen J. (2020). Combatting Asia Pacific’s Digital Skills Deficit in The Post-Covid Era. GovInsider.

¹¹³ United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

¹¹⁴ Ibid.

¹¹⁵ World Bank (2021). Consumer Risks in Fintech: New Manifestations of Consumer Risks and Emerging Regulatory Approaches. Policy Research Paper.

¹¹⁶ See generally MacCarthy M. (2019). Fairness in Algorithmic Decision-Making. Brookings Institution.

activities, such as theft from digital wallets, digital crowdfunding Ponzi schemes, and fraudulent initial coin offerings. This problem is further exacerbated by a lack of e-literacy, or consumer knowledge about how to properly use digital technologies and detect suspicious digital offerings.

The third risk is irresponsible digital financial products, or products and offerings with misleading terms and conditions or insufficient recourse measures. This risk is closely related to adequate consumer protection and the obligation of relevant authorities to ensure that digital platforms treat their customers fairly. A lack of refund mechanisms and the absence of fraud detection on P2P platforms are among the relevant indicators for irresponsible digital financial products that can incur significant losses to users.

The fourth risk is the unfair treatment of consumers arising from discriminatory algorithms and data analysis methods. Biases in automated credit scoring, rate setting, and risk assessment can unintentionally or intentionally affect the access of vulnerable groups to digital and traditional finance. According to the Women's World Banking report, women and ethnic minorities are particularly vulnerable to discriminatory algorithms in the financial sector and better code oversight and credit scoring methodologies are required to address this problem.¹¹⁷ Institutions need to be aware of their own biases when designing algorithms, for example collecting data on phone hardware and contact information may be inherently gender biased because women are less likely to have a smartphone and are responsible for unpaid care work in the household (versus salaried employment that would lead to more business contacts).¹¹⁸

The fifth major risk is market concentration and rent-taking. Considering that many digital platforms in Asia-Pacific such as WeChat and Grab have turned into "Super Apps" which offer a broad range of services, the concentration of market power in their hands can negatively affect competition and innovation. Major digital platforms can buy their competitors and influence the pricing of a broad range of products thus giving them unfair market power. Regulators will need to maintain competition in the ICT sector by adopting and enforcing robust competition regulations. A recent example of this is China's antitrust crackdown on major digital companies including Tencent and Alibaba, which had amassed and hoarded massive caches of consumer data and were criticized for monopolistic conduct among the handful of players in China's platform industry.

The sixth risk is incomplete, outdated, or unsuitable regulations. As was already highlighted above, digitalization brings a range of new risks such as data concentration, market monopolization, and digital crime. This means that regulators will need to ensure that their financial, data, and competition regulations adequately address risks arising from digitalization. Regulators in the region have already adopted a range of new policies to tackle digital finance, including the introduction of virtual bank licenses in Hong Kong and Singapore and the modernization of the capital adequacy framework in Australia. However, multiple gaps remain in developing countries in the region, which often have weak data, competition, and financial regulatory frameworks, all of which can be harmful for both users and businesses.¹¹⁹

¹¹⁷ Kelly S., Mirpourian M. (2021). Algorithmic Bias, Financial Inclusion, and Gender. Women's World Banking.

¹¹⁸ For more information on gender bias in algorithms, see Women's World Banking.

¹¹⁹ The Gan, T. (2018). Data and Privacy Protection In ASEAN: What Does It Mean for Businesses in the Region? Deloitte.

5. ENHANCING DIGITAL FINANCE: AN ACTION AGENDA IN ASIA AND THE PACIFIC

To maximize the benefit from digitalization, policymakers and regulators in the region will need to address risks and obstacles related to digital finance. An action agenda to support digital finance in Asia and the Pacific as a tool for the attainment of the SDGs should focus on three levels: infrastructure, regulatory approaches, and the wider ecosystem.

5.1. Infrastructure

There are five central aspects to digital finance infrastructure. Digital access, discussed in Section 3.1, is a foundational prerequisite for providing the unbanked population of Asia and the Pacific with technology-based financial solutions. To advance cross- and intra-country regional digital connectivity, initiatives such as the intergovernmental platform the Asia-Pacific Information Superhighway can function as a broad coordinating mechanism to bridge the steep digital divide between urban and rural populations.¹²⁰ By boosting regional broadband connectivity in developing countries of the region, the mechanism aims to lower broadband Internet prices and create a latticework of region-wide open access infrastructure. Policymakers and regulators in developing countries could consider developing regional frameworks as well as national roadmaps detailing how to turn high-level national or regional strategies and plans into concrete action. The International Telecommunications Union details how public funding can play a crucial role in the expansion of affordable broadband access to commercially challenging rural and remote areas, to women, and to low-income users.¹²¹

Creating efficient digital systems also involves the facet of interoperable electronic payment systems, which require parallel advances in both technology and regulatory oversight. Central banks play a key role in this development process and have been at the helm of

the growing momentum to build wholesale real time gross settlement systems (RTGS) and fast payments systems (FPS) around the region. More recently, increasing numbers of countries are considering or implementing central bank digital currencies to serve as the basis of digital payments and money. Central bank digital currencies also have great potential to enhance the efficiency of cross-border payments by driving down costs and increasing efficiency, but their implementation will require substantive cross-border cooperation as well as significant prior research into how to make bank prices as competitive as informal agent networks while still remaining profitable, a challenge which until today remains the main obstacle to the widespread adoption of formal avenues for remittances.¹²²

The third is to enable digital IDs to be more accessible and requirements for opening an account to allow for proportionate risk-based measures to support financial inclusion. Digital ID systems can help populations in developing nations leapfrog from handwritten birth records into the frying pan of economic life, though clear regulations surrounding data security and privacy are fundamental to protect user data. However and data security risks notwithstanding, vulnerable groups still have the most to gain from universal digital identification. Systems can be designed to be scaled up rapidly but without the flaws that could lead to data breaches or fraud. The role of digital IDs within the financial system should also be considered (i.e. whether the card will replace traditional banking mechanisms or be a way to streamline KYC requirements). The starting point for setting up universal digital identification include essential digital infrastructure, including mobile network coverage in remote areas and affordable access to mobile phones and energy and ensuring the inclusion of vulnerable groups as a starting point. In parallel, it is important that relevant

¹²⁰ UNESCAP (n.d.). ICT and Disaster Risk Reduction: The Asia-Pacific Information Superhighway (AP-IS) Platform.

¹²¹ ITU (2020). Connecting Humanity: Assessing Investment Needs of Connecting Humanity to the Internet by 2030.

¹²² Bank of International Settlements Committee on Payments and Market Infrastructures, International Monetary Fund and World Bank (2021). Central bank digital currencies for cross-border payments. Report to the G20.

ministries implementing such measures promote a sufficient level of digital literacy either directly or through a network of service providers such as NGOs and technical support entities, which includes courses on how to apply for digital IDs, how to prevent and identify fraud, and how to use digital ID for accessing public and private services. Additionally, governments can enact other measures to proportionately reduce the ID requirements needed to open accounts through the implementation of tiered KYC systems.

The fourth aspect of digital infrastructure is access and usage of bank and/or mobile money accounts, for which there has been a major effort throughout the region and notable successes in China and India. Widespread access to financial accounts enables government payments and transfers as well as underpins other financial transactions which support SDG progress more generally. However, this must be complemented with digital and financial literacy campaigns and skills building to ensure that access results in financial usage and true inclusion in the financial system.

Fifth, there are broad possibilities for digitalization of a wide range of other financial infrastructure, relating to securities markets, secured transactions, and property registries. Digitalization of the abovementioned forms of financial infrastructure can improve security and access to various financial and non-financial services. The development of platforms to aggregate micro-savings to invest in the SDGs discussed in Section 4 is another good idea that deserves serious consideration.

5.2. Regulatory Approaches

In terms of regulatory strategies that can be adopted to optimize the benefits of digitalization and minimize related risks, understanding the opportunities as well as risks posed by digitalization is central. This is particularly the case – as highlighted by the UN Dialogue on Global Digital Finance Governance – with regards to the emergence of digital finance platforms or ‘BigFintechs’. As digital technology and innovations

are expanding at a staggering rate, regulators struggle to catch-up. As a starting point, regulations and standards on data protection are critical. Some relevant regulatory changes include data protection reforms in countries like China, Kazakhstan, Uzbekistan, and others.¹²³ The purpose of these reforms is to ensure the fair use of data and prevent data monopolization that can impair fair competition.

Specific areas of regulation — including payments, lending, crowdfunding, data protection and use, competition, and sustainability — are developing rapidly with new legislation or regulations in many places. For example, competition law is likely to play an important role in the governance of digital platforms as they increase in size and create risks related to market concentration. Regulators in China have recently pushed against major tech companies such as Tencent and Alibaba in an effort to tackle market monopolization and increase competition.¹²⁴ As digital platforms in the region continue to grow, regulators in other countries will need to make sure that their competition laws can effectively support fair competition and prevent the concentration of market power in the hands of BigTechs.

Another important area is financial regulation where relevant stakeholders are trying to improve the governance of digital financial platforms. The introduction of digital bank licenses in Hong Kong and Singapore is an important development in this area.¹²⁵ Lastly, sustainability and ESG reporting is rapidly evolving at the international and domestic levels to tackle climate change and support sustainable development. Overall, regulators in the region will need to stay abreast of relevant developments related to digital technologies and financial institutions to mitigate new forms of risk and utilize opportunities for sustainable development.

Many jurisdictions are also developing regulatory sandboxes to test and learn about new technologies and models as part of developing appropriate regulatory

¹²³ Swift M. (2019). Eager to share in global digital economy, developing nations embrace data protection laws. MLex Market Insights.

¹²⁴ See for example Xue, Yujie and Deng, Iris (2021). China antitrust: Beijing orders Tencent to end exclusive music licensing seals in a first for the country. SCMP; Dentons (2021). Alibaba Hit with Record \$2.8 Billion Fine for Antitrust Violations in China.

¹²⁵ Chanjaroen C., Lee Y. (2020). Ant, Grab Become First Tech Firms to Run Banks in Singapore. Bloomberg.

and supervisory systems. Such sandboxes allow companies to offer innovative financial products while enjoying a waiver of or a reduction in applicable regulations. Countries in the region such as Thailand, Malaysia, and Indonesia, have adopted regulatory sandboxes to promote financial innovation.¹²⁶ These programmes are particularly powerful as part of an innovation hub in the wider ecosystem. Furthermore, the testing of new financial products through regulatory sandboxes can help regulators to understand technology-related risks and create better regulatory frameworks to both manage the risks of digitalization and promote innovative solutions to problems in the current digital financial landscape.

It is also important for policymakers and regulators to constantly upgrade their own use of technology, from the standpoint of digitalization of their own operations and approaches as well their use of technology for regulatory purposes and infrastructure development and the use of technology by the financial sector for reporting and compliance purposes: RegTech and SupTech.

In sum, regulators in Asia and the Pacific need to assess carefully the existing frameworks and stay abreast of relevant developments related to digital technologies and financial institutions to make sure that they provide appropriate regulation in support of the core objectives of financial stability, financial integrity, and market conduct / consumer protection.

5.3. The Wider Ecosystem

From the standpoint of supporting innovation and the SDGs, it is also important to consider aspects of the wider ecosystem of digital finance. These include the legal system (particularly relating to support for digitalization, often relating to digital ID), human capital development, the creation of an innovation hub, and financing or supporting research and development in the economy.

Some of the obstacles related to the wider ecosystem were mentioned in section 5. For example, a shortage of digital talent, a lack of financial, technical, and legal support for the development of digital platforms can slow digitalization in the region.¹²⁷ Other problems include outdated and weak legal frameworks that create unnecessary barriers for companies, a lack of innovation hubs, and the absence of financial support for new entrants.¹²⁸ To address these gaps, governments can invest in human capital development by introducing accessible education programs designed to support the digital economy in the region. This could include online courses and/or better funding for educational institutions. Further, regulators and policymakers can create innovation hubs that provide legal, technical, and financial support to start-ups and other companies. Such hubs can address some of the main challenges that small firms face before reaching the market thus contributing to innovation and competition. Lastly, policymakers should ensure that their domestic legal systems do not hinder innovation and support fair competition. To achieve this, regulators should adopt clear and accessible rules regarding company registration, taxes, employment, and other matters relevant to small and large businesses.

¹²⁶ Goo JJ, Heo JY (2020). The Impact of the Regulatory Sandbox on the Fintech Industry, with a Discussion on the Relation between Regulatory Sandboxes and Open Innovation. *Journal of Open Innovation*.

¹²⁷ Ibid; United Nations Task Force on Digital Financing of the Sustainable Development Goals (2020).

¹²⁸ Ibid. See also BIS (2019). *Big Tech in Finance: Opportunities and Risks*; UNESCAP (2020). *Policy Priorities for Transformation to Inclusive Digital Economies*.

CONCLUSION

Over the past decade, digital finance in Asia Pacific has grown substantively but unequally, with frequently patchy foundations to build financial inclusion for vulnerable populations. At the same time, innovative digital solutions in the region, ranging from digital IDs in India to P2P financing platforms in Southeast Asia, are transforming the landscape of social safety nets, facilitating the ease of subsidy disbursement and driving down remittance costs. Implemented at scale, these solutions have the potential to make a tangible impact on sustainable development including the eradication of extreme poverty, improved economic opportunities, promotion of equality, and the improvement of public service delivery and financing.

Governments can prioritize mainstreaming the digital revolution, both as a means to improve public systems, avoid redundancy in the face of rapid private sector developments in digitalization, and to introduce regulatory measures to minimize fraud and corruption while protecting consumers from being at the mercy of BigFintechs. If policymakers wish to

adopt digital financial systems, several prerequisite stages of development are necessary, including the establishment of digital infrastructure, the development of regulatory frameworks and the promotion of e-literacy within the population. In Asia Pacific, there is room for policymakers and regulators to take advantage of the potential opportunities ushered in by private sector advancements in technology. Some private-public partnerships have gained substantial traction with comprehensive program roll-outs, while other relationships lag behind due to insufficient infrastructure for Internet access, sporadic initiative by central banks, and a gap in laws and oversight to minimize irregularities in the digital finance space. Even though in a post-pandemic world governments have catalyzed developments to digitalize social transfer programs, without the comprehensive citizenship registration that a sovereign digital ID would provide, fundamental access to the necessities of economic participation will remain inaccessible to much of the population.

The 4th issue of ESCAP's Financing for Development Series, Financing the SDGs to build back better from the COVID-19 pandemic in Asia and the Pacific, reviews a range of financing instruments, strategies and mechanisms that can help Asia-Pacific economies recover from the pandemic and effectively pursue the SDGs. The report takes a "deep dive" into the role of innovative climate and digital finance strategies to address the financing gaps and support the achievement of the SDGs, and it suggests key regulatory and solution-oriented policy actions that can help scaling up financing in support of the SDGs.

