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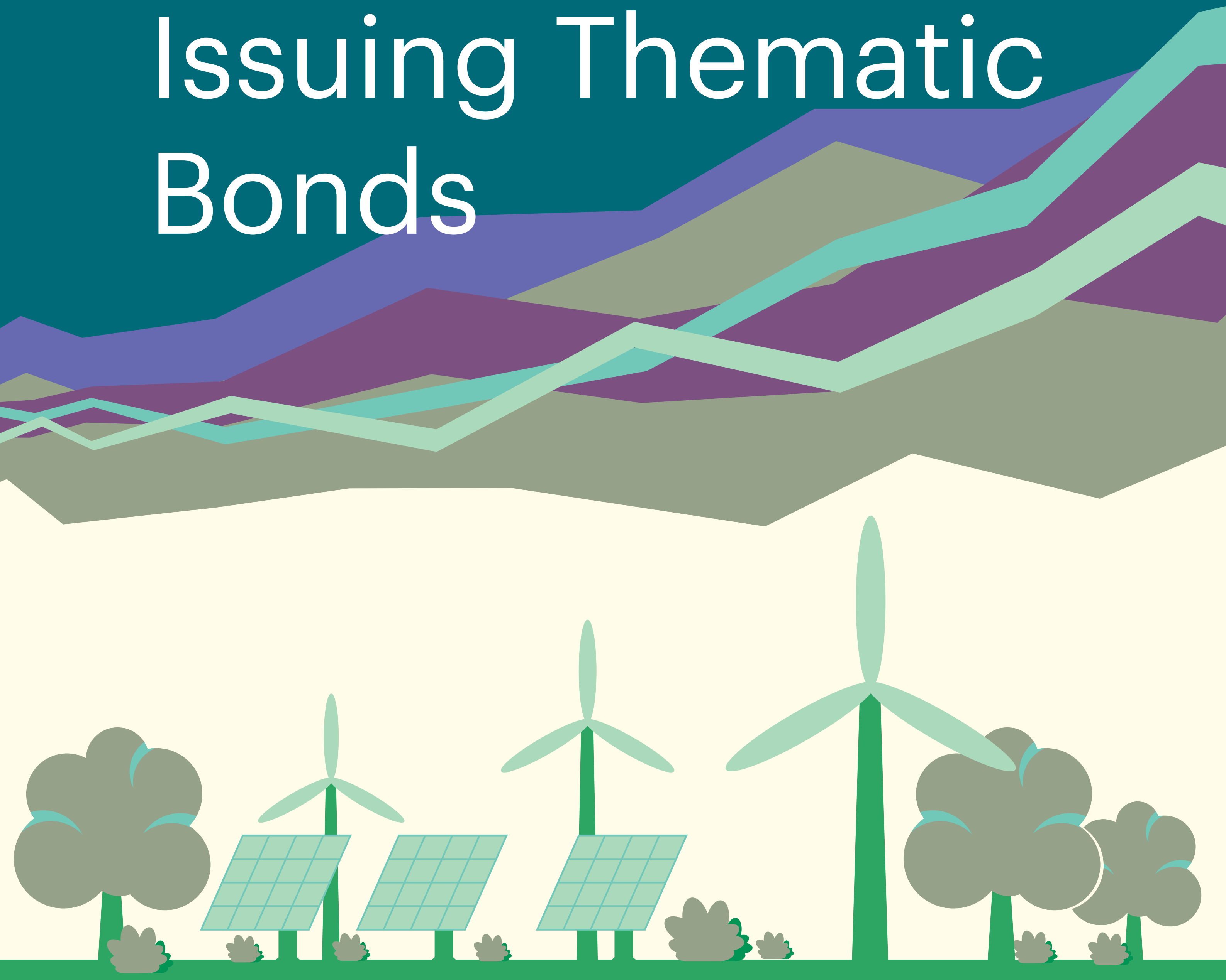
MOVING FORWARD TOGETHER

An Introduction to Issuing Thematic Bonds



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An Introduction to Issuing Thematic Bonds

Foreword

The fixed income markets have seen a substantial rise in the issuance of green, social, sustainability, and Sustainable Development Goal (SDG) bonds in the past few years. These types of bonds, referred to collectively as thematic bonds, are akin to common fixed-income securities with the main difference being that the projects financed from the issuance of such bonds aim to generate high environmental and social benefits. Thus, thematic bonds have the potential to contribute to the implementation of the 2030 Agenda for Sustainable Development.

The signing of the Paris Agreement in 2015 was in part responsible for triggering the emergence of green bonds. The Agreement brought to the forefront the urgent need for global institutional investors to join the fight against climate change through capital investments based on sound environmental principles. Simultaneously, other types of fixed-income securities — such as social, sustainability, and SDG bonds — emerged to offer redress for other global challenges outlined by the Sustainable Development Goals (SDGs). The devastating socio-economic consequences of the COVID-19 pandemic, and the resultant need for fiscal spending, have only increased interest in these instruments, including in countries in special situations. Issuing a thematic bond is a multifaceted process, involving numerous steps issuers are required to follow.

This report describes the major processes involved in the issuance of thematic bonds, which can be categorized into four stages: (i) feasibility; (ii) pre-issuance; (iii) issuance; and (iv) post-issuance. It provides practical guidelines for engaging in each stage of the process and explains critical actions that need to be undertaken in the issuance procedures, as well as outlines the unique dimensions and benefits that thematic bonds offer.

I hope that both practitioners and policymakers benefit from this report.

Hamza Ali Malik

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Acknowledgments

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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.

In the tables, two dots (..) indicate that data are not available or are not separately reported; a dash (–) indicates that the amount is nil or negligible; and a blank indicates that the item is not applicable.

In dates, a hyphen (-) is used to signify the full period involved, including the beginning and end years, and a stroke (/) indicates a crop year, fiscal year, or plan year.

Abbreviations and Acronyms

ACMF	ASEAN Capital Markets Forum
ADB	Asian Development Bank
AIX	Astana International Exchange
ASEAN	Association of Southeast Asian Nations
BNM	Bank Negara Malaysia
CBI	Climate Bond Initiative
COVID-19	Coronavirus Disease 2019
DREI	Derisking Renewable Energy Investment
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
ESG	Environmental, Social, and Governance
GBP	British Pound Sterling
GEF	Global Environment Facility
GHG	Greenhouse Gas
ICMA	International Capital Markets Association
IDR	Indonesian Rupiah
IPO	Initial Public Offering
KPI	Key Performance Indicator
KWH	Kilowatt Hour
KZT	Kazakhstani Tenge
MRT	Mass Rapid Transit
NDC	Nationally Determined Contribution
ODA	Official Development Assistance
SBG	Sustainability Bond Guidelines
SBP	Social Bond Principles
SC	Securities Commission Malaysia
SDG	Sustainable Development Goal
SLBP	Sustainability-Linked Bond Principles
SPO	Second-Party Opinion
SPT	Sustainability Performance Target
SPTF	Social Performance Task Force
SRI	Sustainable Responsible Investment
THB	Thai Baht
TRIS	Thai Rating And Information Services
UNDP	United Nation Development Programme
USD	United States Dollar
UNFCCC	United Nations Framework Convention On Climate Change
UZS	Uzbekistani So’m
VND	Vietnamese Dong

1. Introduction

In recent decades, the myriad challenges of sustainable development and climate change have inspired calls for all stakeholders to step up their efforts to deal with these challenges. Such calls have intensified since the international community assembled to establish two landmark global agreements in 2015: the Paris Agreement on Climate Change and the 2030 Agenda for Sustainable Development.[1] Progress, however, has been slow in the Asia-Pacific region, which is not on track to achieve any of the 17 Sustainable Development Goals (SDG).[2] Additionally, a recent United Nations report has found that under the current nationally determined contribution commitments, greenhouse gas (GHG) emissions in the region are projected to increase by 34 per cent by 2030 compared to the 2010 level, demonstrating the urgent need to channel a significant amount of additional financing flows towards climate adaptation and mitigation efforts.[3] The COVID-19 pandemic and the measures to contain its spread have placed health and socioeconomic systems worldwide under severe strain and put in jeopardy the achievement of the 2030 Agenda for Sustainable Development and commitments made under the Paris Agreement.

Mobilizing financing for these global agendas is critical. The frameworks explicitly acknowledge the importance of different financial actors, reflecting the central role that finance plays in catalyzing the development of solutions to overcome global challenges.[4] Target 17.3 of the 2030 Agenda for Sustainable Development is for the collective mobilization of additional financial resources for developing countries, derived from multiple sources, to increase investments in the SDGs. More recently, the United Nations Secretary-General's *Roadmap for Financing the 2030 Agenda for Sustainable Development* provided concrete recommendations for sustainable financing strategies at the regional and national levels.[5] Enhancing investment in the SDGs is not only critical for the implementation of the 2030 Agenda for Sustainable Development — the blueprint for a better future for all — but also makes good economic sense. It has been estimated that achieving the SDGs could open up USD 12 trillion of market opportunities and create 380 million new jobs by 2030.[6] It is also projected that bold climate action could yield a cumulative economic gain of USD 26 trillion by 2030, compared with the business-as-usual scenario.[7]

[1] UNFCCC (2015). The Paris Agreement; United Nations (2015). Transforming our world: the 2030 Agenda for Sustainable Development.
[2] ESCAP (2021a). Asia and the Pacific SDG Progress Report.
[3] ESCAP, UNEP, UNW, and the greenwerk (2021). Is 1.5°C within Reach for the Asia-Pacific Region? Ambition and Potential of NDC Commitments of the Asia-Pacific Countries.
[4] ESCAP (2021b). Financing the SDGs to build back better from the Covid-19 pandemic in Asia and the Pacific.
[5] United Nations (2019). Roadmap for Financing the 2030 Agenda for Sustainable Development.
[6] Business and Sustainable Development Commission (2017). Better Business, Better World.
[7] New Climate Economy (2018). Unlocking the Inclusive Growth Story of the 21st Century: Accelerating Climate Action in Urgent Times.

However, the amount of additional investment required to achieve the SDGs is not trivial, especially for least developed countries. The financing needed to achieve SDGs in Asia-Pacific developing countries is estimated at USD 1.5 trillion annually.[8] Given the vast scale of capital required to respond to the twin challenges of the COVID-19 pandemic and the climate crisis, private investors play a fundamental role in supporting government efforts to finance sustainable investments in both developing countries and countries in special situations.[9] The latter include least developed countries, landlocked developing countries, and small island developing States — all of which are highly vulnerable to the impacts of climate change and have the greatest funding shortfalls for SDG implementation. Moreover, their access to public sources of finance, both domestic and international, is insufficient.

Meanwhile, access to private financing by developing countries is rapidly increasing because of the development of new financial instruments, such as green, social, sustainability, and SDG bonds. These types of bonds are referred to collectively as thematic bonds. These are fixed-income debt securities issued by both public and private sector entities on the condition that the funds obtained are used to finance projects with a positive social and environmental impact.[10] Thematic bonds are akin to traditional fixed-income bonds, offering predictable returns for investors in the form of a fixed coupon in exchange for medium to long-term funding. In the past, the bond markets have been used primarily by governments and corporations to raise capital for general use. Investors would consider whether to invest based on the risk profile of the bond issuer, including its credit rating, and the rate of interest paid by the bond. Traditionally, investors focused on these parameters, rather than if the bond issuer would employ the funds raised for a particular environmental or social purpose. Thematic bonds are innovative because of their focus on the use of the bond proceeds to demonstrate environmental, social, and governance (ESG) principles.

The main characteristic of these bonds is that they require disclosure and reporting on the use of the issuer's proceeds. This facilitates linkages between investors, such as pension funds, banks, and insurance companies with assets that are expected to have a positive environmental and/or social impact. Because global and domestic investors increasingly factor in climate change risks and the SDGs into their investment decision-making, many projects and borrowers in the Asia-Pacific region, including in countries in special situations, can potentially benefit from issuing thematic bonds to fund sustainable development projects and reduce GHG emissions. Nevertheless, to be successful, thematic bonds need to be issued with a sound framework and taxonomy that are internationally recognized. In fact, issuing green, social, sustainability, or SDG bonds is a multifaceted process with numerous steps that new issuers need to be aware of.

The aim of this report is to introduce the issuance of thematic bonds, by providing a description of the steps required by issuers. The report is organized as follows: Section II briefly describes the different types of thematic bonds and provides examples of issuances in Asia and the Pacific. The subsequent sections outline the four main stages of the bond issuance process. Section III discusses the feasibility stage and examines critical issues before embarking on the subsequent stage. Section IV outlines key steps in the pre-issuance stage, including appointing key advisors, selecting the bond framework, and investor outreach. Section V describes the key elements of the issuance stage. Section VI outlines the post-issuance stage, including monitoring and reporting the project impact and preparing for future transactions. Section VII concludes with a summary of key lessons learned.

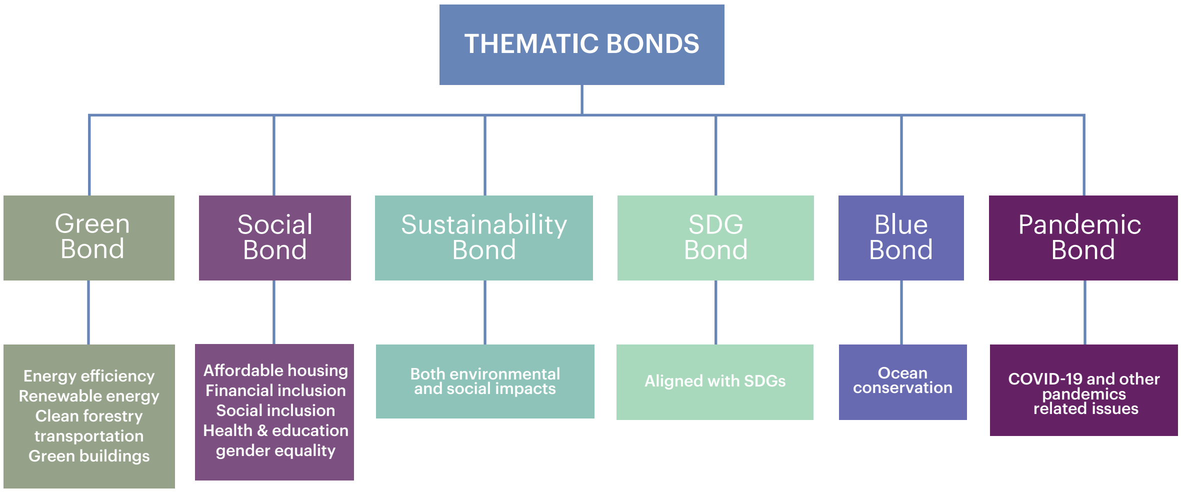
[8] ESCAP (2019). Economic and Social Survey of Asia and the Pacific 20919: Ambitions beyond growth.
[9] ESCAP (2021c). Countries in Special Situations.
[10] IDB Invest (2020). Transparency is the Key for Thematic Bonds' Success.

2. Thematic bonds and their growing importance in Asia and the Pacific

There are several different types of bonds available under the banner of thematic bonds (Figure 1). These include, but are not limited to, green, social, sustainable, and SDG bonds. Within these categories there are sub-categories. For example, green bonds include climate bonds linked to climate mitigation, such as projects in solar and wind technologies that reduce GHG emissions, and climate adaptation, such as infrastructure projects to protect against flooding. At the same time, other types of thematic bonds have emerged in response to new challenges. For example, the devastating consequences of the COVID-19 pandemic have seen an influx of pandemic bonds. Initially, with the rise of COVID-19, there were concerns that the demand for thematic bonds would decline.[11] Although the composition changed — with an increase in the proportion of sustainability and social bonds relative to green bonds — the overall volume of issues continues to rise.

[11] An emerging thematic bond is a sustainability-linked bond that is a performance-based debt instrument that pledges a commitment to sustainability enhancement. The coupon rate of the bond can vary depending on achieving, or not achieving, sustainability performance targets (SPTs) with the key performance indicators (KPIs) of the sustainability funds raised by the bond. These bonds have an underlying incentive mechanism to increase the sustainability impact of the investments funded. For details read ICMA (2020). Sustainability-Linked Bond Principles: Voluntary Process Guidelines.

Figure 1 – Different types of thematic bonds that support SDGs' achievement



Source: ESCAP

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 became the first developing country to issue a sovereign green bond. The issuance was based on the International Capital Markets Association (ICMA)'s Green Bond Principles and raised USD 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.[12]

- In February 2018, Indonesia issued the first sovereign bond compliant with Islamic law to fund the country's climate change commitments under the Paris Agreement. This first green Sukuk was followed by two annual issuances in 2019 and 2020. In total, the country raised USD 3.24 billion — USD 2.75 billion through global issuances, and IDR 6.86 trillion (USD 490 million) through domestic issuances.[13]

- In August 2020, Thailand issued a three tranche-bond for a total of THB 50 billion (USD 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 programme for small and medium-sized enterprises affected by the COVID-19 pandemic.

- In April 2021, Malaysia issued the world's first sovereign USD-denominated sustainability *Sukuk* with a size of USD 800 million and a 10-year maturity.[14] The offering was oversubscribed by 6.4 times and resulted in an upsizing of the offering.

In addition, Indonesia and Uzbekistan both issued SDG bonds in 2021 with support from the United Nations Development Programme (UNDP). The Indonesia bond was issued at EUR 500 million (USD 564.22 million) with a 12-year maturity and a coupon rate of 1.3 per cent and will support social and environmental projects. Uzbekistan will be issued in two tranches, consisting of USD 635 million and USD 235 million (denominated in UZS). The first tranche is for a period of 10 years and carries a 3.9 per cent annual coupon, while the second is for three years with a 14 per cent coupon. Proceeds from these international bonds will be used to finance education, water management, health, green transportation, pollution control, management of natural resources, and green energy.

Issuances of thematic bonds by non-sovereign issuers in the region include China Development Bank's USD 1.9-billion bonds to finance infrastructure linked to COVID-19 responses and financial institutions, such as the Republic of Korea's Kookmin Bank[15] and Bank of the Philippine Islands,[16] which issued USD 500 million and USD 300 million, respectively, to finance and refinance small and medium-sized enterprises hit by the pandemic. More recently, Surbana Jurong, a Singapore-based consulting firm specialized in sustainable infrastructure, issued the first sustainability-linked bond in South-East Asia.[17] Boxes 1 and 2 below provide examples from countries in special situations.

[12] Emose, Griffon (2021). Sustainability Bond for the Pacific Feasibility Study. United Nations ESCAP, Macroeconomic Policy and Financing for Development Division.
[13] Ministry of Finance, Indonesia (2021). Green Sukuk: Allocation and Impact Report.
[14] Ministry of Finance, Malaysia (2021). World's First Sovereign U.S. Dollar Sustainability Sukuk Issuance by The Government of Malaysia.
[15] Asset, The (2020). Kookmin Bank Prices Covid-19 Response Sustainability Bond.
[16] Philstar Global (2019). BPI pioneers Asean green bond issuance.
[17] See Surbana Jurong (2021). Surbana Jurong Group bond, Southeast Asia's first public sustainability-linked bond, is more than six times oversubscribed.

Box 1: Can countries in special situations issue thematic bonds?

While accepting that the notion of thematic bond issuance is relatively new in countries in special situations, there are important precedents in the region. Fiji's issuance of a green bond in 2017 is one such example. In addition, two Asia-Pacific landlocked developing countries have recently issued green bonds:

Armenia
The country plans to begin a number of initiatives on green financing to support various SDGs, such as Goal 7, affordable and clean energy; Goal 9, industry, innovation, and infrastructure; Goal 11, sustainable cities and communities; and Goal 13, climate action. Ameriabank, one of the leading banks in Armenia, is striving to support this endeavour. To this end, a green bond equivalent to USD 50 million was issued in 2020, in cooperation with FMO, the Dutch entrepreneurial development bank, marking a milestone in the local financial market as the first-ever green bond project in Armenia. The green bond was structured in accordance with internationally recognized ICMA Green Bond Principles (GBP).

Kazakhstan
Kazakhstan issued green bonds for the first time in August 2020. The instrument debuted in the country under the De-risking Renewable Energy Investment (DREI). This project is being implemented by the Ministry of Energy and supported by the UNDP under funding from the Global Environment Facility (GEF), with the objective of promoting investment in renewable energy in Kazakhstan. Around half a million USD worth of investment was attracted by the Damu Fund in this initial green bond issuance, aiming to orient the country's financial system to fuel a low-carbon transformation. The Asian Development Bank (ADB) launched another important initiative in November 2020 that raised nearly KZT 14 billion (USD 32 million) by the first green bonds auctioned and listed on the Kazakhstan Stock Exchange. The two-year KZT 10.09 billion and KZT 3.87 billion bonds pay 10.10 per cent and 10.12 per cent semi-annual coupons, respectively. A notable feature of this bond issuance is the fact that it is denominated and settled in KZT to promote the local currency bond markets as an alternative to bank lending. The bonds were arranged by Tengri Partners and sold to banks and institutional investors in the domestic market.

Sources: FMO (2020). FMO supports Ameriabank in successfully placing its first ever Green Bond.;
UNDP Kazakhstan (2020). UNDP catalyses issuance of first green bonds in Kazakhstan;and
ADB (2020). ADB Issues Green Bonds in Kazakhstan Tenge.

Box 2: Lesson learned from the first sovereign bond issuance in Bhutan

With regards to least developed countries, some of them have yet to issue conventional bonds, but such capacity can be built with technical assistance. Between 2017 and 2020, ESCAP provided technical assistance to the Royal Government of Bhutan to enhance its institutional capacity for bond market development in cooperation with the United Nations Country Team. Despite its small population and landlocked status, the Government of Bhutan made history in September 2020 by successfully issuing its first sovereign bond. The offering was completed as three-year domestic bonds of USD 41 million (or Nu. 3 billion) with an annual coupon rate of 6.5 per cent to support increasing fiscal needs amid the COVID-19 pandemic. The transaction was very well received with an oversubscription of more than 300 per cent, indicating unprecedented private sector participation, including many individual investors. The sovereign bond issuance was critical to address the challenges and limitations for sustainable financing, while promoting Bhutan's image as a model for the development of a bond market in a small landlocked developing country.

The bond issuance also provides strong evidence of the contribution of the international community, especially the United Nations system, in working together with a member State and providing technical assistance to strengthen its capital market. ESCAP's technical assistance included establishing a bond working committee, developing bond issuance rules and regulations, conducting workshops, study tours and consultations, and providing relevant pre-issuance services.

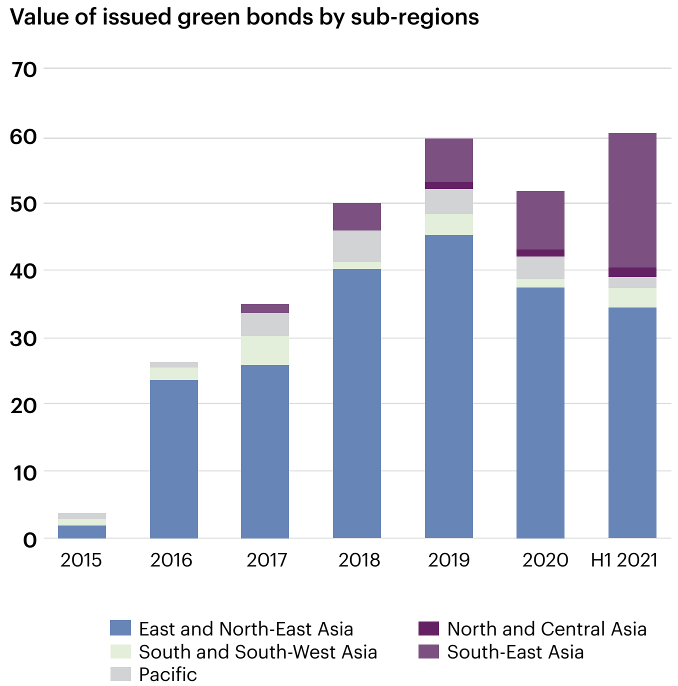
Going forward, the time is ripe for Bhutan to gradually take advantage of cheaper borrowing costs in the international markets, while ensuring that a well thought-out set of regulations and policies are formulated for bond issuance. Moreover, given Bhutan's successful sovereign bond issuance as well as its leadership in protecting its environment and commitment to the SDGs, thematic bonds could be considered in the near future. In this context, ESCAP remains ready to further support Bhutan and other countries in special situations to quickly design and adapt policy options to finance sustainable development and lay solid foundations for a green, resilient, and better recovery from the pandemic.

Sources: Subhanij, Tientip, Masato Abe, and Zenathan Hasannudin (2020). Bhutan's First Sovereign Bond: Financing Lessons During the Pandemic. ESCAP Blogs.

In the past, bond markets have been used primarily to raise capital for general purposes, based on the issuer's risk profile. Thematic bonds represent a considerable innovation, focusing on the use-of-proceeds, providing greater transparency for investors as well as additional information on the management of proceeds, impact reports, and external reviews. Thematic bonds have provided bondholders with the capacity to become significant players in the realization of national environmental and social strategies. It has also enabled the bond markets to become a powerful force in sustainable development.

The growth of green bonds has been very strong in the last five years (see Figure 2). This can be explained in part by the signing of the Paris Agreement in 2015,[18] and the creation of the Green, Social, and Sustainability Bond Principles by the ICMA. Green, social, sustainability, SDG — and, more recently, pandemic bonds — have become an important part of global fixed income markets and are a critical means of financing sustainable development and supporting the recovery from the COVID-19 pandemic.

Figure 2 – Green bonds in the Asia-Pacific subregions from 2015 to 2021



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

[18] United Nations Framework Convention on Climate Change (UNFCCC) (2015), p. 3.

Both investor and issuer motivations are driving the rapid growth of the thematic bond market. Some investors are impelled by a sense of ethical and social responsibility to support projects with a sustainable impact on the environment and society. Others are attracted to thematic bonds based on expectations that they will profit from the rise in the bond valuation in line with a more sustainable business model and the increasing demand for assets that align with environmental and social principles.

Investors are also motivated to use thematic bonds to balance their portfolio risk, for instance by including renewable and non-renewable energy sectors, enabling them to better manage the concentration risk arising from less diverse portfolios, while maintaining liquidity. A recent survey by the Climate Bonds Initiative with some of the largest Europe-based fixed income asset managers found that "respondents profess a high level of integrity and commitment to green, expecting the same from issuers."[19]

Naturally, different investors have different objectives when it comes to investing in thematic bonds. For example, the objectives of domestic investors are likely to differ from those of international investors because of differences in reporting requirements that investors are subject to depending on their home jurisdiction and the countries where they operate (Table 1). For some, the reporting is very intensive and varies across multiple locations.

Table 1 – International investors vs domestic investors

	INTERNATIONAL	DOMESTIC
Types of investors	Global sophisticated funds, hard currency investors, country-risk averse	Local investors in local currency (insurance companies, pension funds, banks, or retail investors)
Reporting requirements	High	Moderate
Cost of debt	Above sovereign hard currency yields	Within domestic yields
Transparency requirements	High	Moderate to high
International acceptance	Global standard preferred	Domestic taxonomy acceptable
Investment environment	Additional privileges and tax incentives in priority sectors	General conditions and regulatory framework

Source: ESCAP.

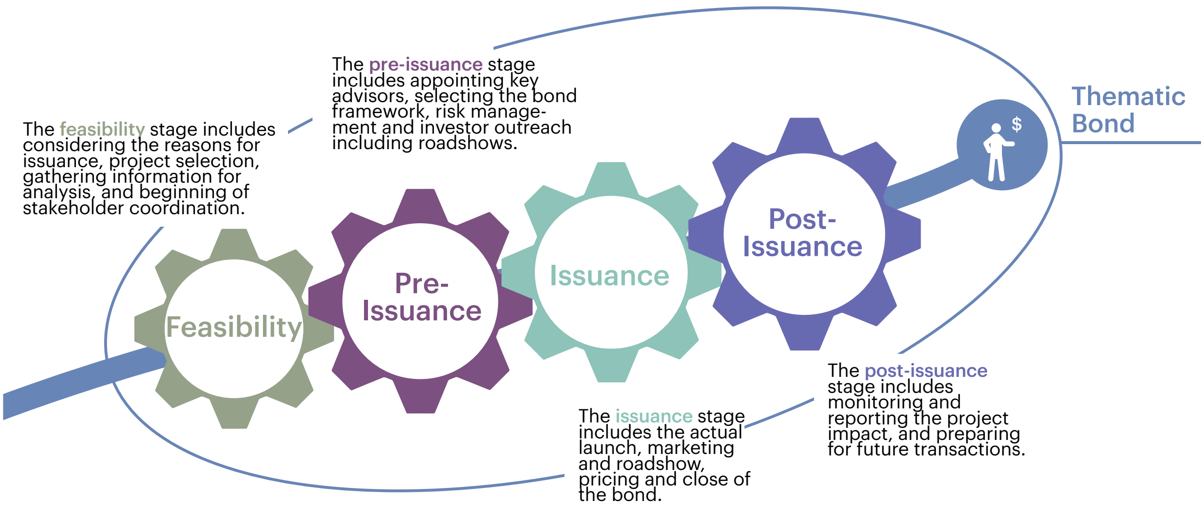
[19] Climate Bonds Initiative (2019a). Green Bond European Investor Survey. p. 10. Available at https://www.climatebonds.net/resources/reports/green-bond-european-investor-survey-2019

On the supply side, thematic bonds can enable issuers to enjoy access to new pools of funds and greater investor diversification. Issuers can also publicly demonstrate their environmental and social credentials and meet stakeholder demands for responsible and sustainable business practices. Issuers, including sovereign, state-owned, and corporate entities, increasingly view thematic bonds as a way to attract new forms of capital, which institutional investors are looking to deploy on behalf of their environmentally and socially-conscious clients.

The process of raising capital through thematic bonds has evolved into a well-defined workflow, anchored in the segregation of funds for specific assets and activities. Although many of the steps are identical to issuing traditional fixed-income bonds, the process includes additional steps, such as the use of proceeds. The process also involves new participants such as independent verifiers, whose responsibility is to assess both the eligibility and the implementation of the projects selected for funding. By creating a clear, transparent path, the thematic bond market is increasing investor confidence and, as a result, attracting more investors.

To maximize the opportunities provided by this segment, issuers must understand the overall process and each of the steps. The key stages of the process are illustrated in Figure 3. The next section outlines the key steps that need to be undertaken in the first stage, to assess whether it is feasible for an entity to issue a thematic bond.

Figure 3 – Key stages in issuing thematic bonds



Source: ESCAP.

3. Feasibility Stage

Before issuing any thematic bond, several questions need to be considered. For example, what does the bond seek to achieve, and what type of projects or activities will be financed? During the feasibility phase, it is also vital to consider the institutional capacity and the needs and roles of key stakeholders. With stakeholders on board, it is possible to coordinate the process better, identifying what additional resources are needed, such as third party advisors, including investment bankers, accountants, and lawyers, and conducting cost-benefit and gap analyses to identify potential problems.

It is also essential to understand that a thematic bond is first and foremost a fixed-income security. As a debt instrument, it is not suited, for example, for high-risk projects because debt instruments require steady cash-flows during the term period. Nevertheless, it may be possible for some projects to address this issue with credit enhancement and guarantees to increase repayment certainty, as will be discussed in Section IV.

A. Reasons for issuance and alignment with an overall funding strategy

First, the potential issuer needs to review its own financial and ESG strategies and business cases for issuing the bond. This will help to refine the bond issuer's financing strategy and ensure that it meets the expectations of key stakeholders including shareholders, regulators, and customers. The potential issuer also needs to consider if other funding methods, such as a bank loan, are available and may be better suited to the task.

To understand which financing strategy is the most appropriate, an analogy with the stages of private business funding may be useful. When a firm is in its infancy, it generally relies on its own or private capital and undertakes considerable risk and internalizes uncertain outcomes. As the business develops and can demonstrate a track record of steady revenues, banks are willing to offer additional financing in the form of bank loans. When a business has accumulated sufficient assets, financing becomes more attractive for lenders. Commercial banks are interested in lending to good quality businesses looking to borrow funds to finance their growth. If the borrower's business models and cash flows are strong and its capital requirements are in excess of bank loans, and the entity still needs additional funds, it can then consider additional sources of capital, such as raising new equity or issuing bonds.

For public entities, such as state-owned enterprises, the situation is similar. Regardless of whether the entity is public or private, a project with no track record or support from a stronger parent or backer would not be able to raise debt but would instead attract equity investors in search of future upside potential. In contrast, a project with a steady established cash flow stream will be able to attract lenders, either in the form of commercial or syndicated loans, or through a bond issuance.

B. Project selection

Once the potential issuer has considered possible finance options and decided on the need to issue bonds to raise capital, the issuer needs to consider whether a traditional fixed income bond or a thematic bond would be the most appropriate. And in the case of the latter, qualifying projects and assets have to be identified as well. The potential issuer must also consider if the proceeds criteria for the issuance of thematic bonds have been met, and understand that the projects are to be earmarked for funding from green, social, sustainability, or SDG bonds. While meeting the use of proceeds criteria may be relatively easy for some types of projects, such as in hydro, solar, or wind energy, it may be more complex for other projects, such as in agriculture, shipping, or manufacturing.

The critical feature of thematic bonds is that the proceeds back environmental or social projects or assets. The "greenness" of the issuing entity does not matter — although the image of the issuer does significantly impact the success of a thematic bond issue in a market — the central focus is on individual assets and projects. The potential issuer, therefore, needs to identify eligible projects, and for this purpose establish a framework to identify the projects that fit with the overall ESG strategy. The third-party verifier, discussed below, can also assist in the project selection.

C. Initial information

To determine the appropriate type of funding and eligible projects for private issuers, company and project information must be prepared. This includes: audited financial statements of the issuer, proposed capital expenditures, a business plan, a list of eligible green, social, or sustainability projects, a detailed list of all outstanding debt commitments, and any off-balance sheet liabilities.

In the case of sovereign thematic bond issuances, the sovereign issuer should engage all relevant stakeholders within the government the same as if they were considering issuing a traditional bond. These include the central bank, treasury, and the department of finance and budget. The issuance of a thematic bond will need to be consistent with a country's overall debt issuance programme and its potential impact on its debt capacity and credit rating. At this stage, it is essential to share information with all departments and ministries involved in issuing sovereign bonds and consider the formation of a committee to begin discussions and identify any potential issues. Prospective sovereign bond issuers should also start to determine and map possible activities contributing to ESG targets that the bond could fund, and tag areas of government spending using existing accounting and budgeting systems. For example, activities identified in the nationally determined contributions (NDCs) established under the UNFCCC Paris Agreement could be tagged as potential projects.

This information will form the basis of planning and discussion with third-party advisors and potential investors. Initially, this information can be prepared internally to facilitate the discussion. If the process moves to the subsequent stages, however, additional information, and advice from a third party will be required.

D. Stakeholder coordination

Selecting the right team is critical to ensure that the transaction will be successful. Issuing a thematic bond is a multifaceted process requiring the experience of various key stakeholders, such as specialist advisors, accountants, investment bankers, and lawyers. Accounting firms often assist project owners to prepare the financial models to support financing and advise on the financial parameters, making the project more viable to investors. Given their extensive experience in advising multiple projects across various industries, investment bankers can also provide valuable insights into structuring the proposed bond. Likewise, regarding the selection of projects, the verifier is an essential third-party advisor, similar to a lawyer.

Multiple skills are needed to structure a transaction successfully. Among the most important are legal and financial capacities combined with strong communication and leadership skills. The team in charge of the bond issuance process must be trained to understand the various components of the process and respond in a timely fashion to the various stakeholders' requirements.

A central task force should also be created, with representatives from operations and senior management to provide internal endorsement for the initiative. Furthermore, multilateral development banks and development institutions can also assist in the process. An essential aspect of this work is to organize knowledge sharing sessions for everyone to learn by example. In this vein, ESCAP can support the issuance process in various ways, including assisting issuers in the preparation of feasibility studies and providing a platform for knowledge sharing.

After examining the feasibility of issuing a thematic bond and conducting the appropriate analysis in order to identify potential gaps in the entity's ability to move forward and develop proper responses to critical questions, the next phase in the process of issuing a thematic bond is the pre-issuance stage.

4. Pre-issuance Stage

This section describes the essential steps in the pre-issuance stage. Once the issuer has identified a borrowing need and decided to finance through issuing a thematic bond, several things must be done before its launch. At this stage, the issuer needs to decide what type of bonds to issue and how to structure them. This includes appointing key advisors, choosing the bond framework, and investor outreach. These decisions and actions will be influenced by the supply and type of investable projects available and investor interest.

A. Appoint key advisers

During the pre-issuance stage, the issuer will need to appoint key parties for the transaction, including an underwriter to lead the transaction, usually an investment banker, and lawyers. When issuing any type of bond, it is expected that a financial institution arranges the transaction, including the sale of the bonds, legal documentation, and settlement procedures. This is the role of the lead underwriter. The lead underwriter then contacts other financial institutions to form a syndicate of underwriters, typically a group of investment banks, that agrees to buy the bonds to sell to investors. Before embarking on a bond issuance, the issuer needs to ensure that there will be no legal barriers. For that purpose, lawyers need to provide advice, for example, on whether the issuance falls within the issuer's statutory powers and whether there are any borrowing restrictions.

B. Framework selection

In the past, the definitions of different thematic bonds were often subjective and open to interpretation, but more recently we have seen the development of standards and frameworks for various thematic initiatives on the international stage. These include the Green Bond Principles (GBP), the Social Bond Principles (SBP), the Sustainability Bond Guidelines (SBG), and the Sustainability-Linked Bond Principles (SLBP).[20] The GBP, for example, are voluntary, best-practice process guidelines for issuing green bonds. These frameworks aim to promote greater transparency, disclosure, reporting, and integrity in developing thematic bond markets. Initially established in 2014 by a group of investment banks, the GBP are now managed by the International Capital Market Association (ICMA). Other examples include: the ASEAN Green Bond Standards by the ASEAN Capital Markets Forum (ACMF),[21] and the Climate Bond Standard by the Climate Bonds Initiative.[22] These frameworks are often related. The ASEAN Green Bond Standards,

[20] International Capital Markets Association (ICMA) (2021a). Harmonized Framework for Impact Reporting.
[21] ASEAN Capital Markets Association (2017). ASEAN Green Bonds Standard.
[22] For more details, please see the Climate Bonds Sector Criteria.

for example, build on the ICMA GBP's and are relevant to green bond issuers with a geographical or economic connection to the ASEAN region.

According to the GBP, a green bond is defined as any bond instrument with proceeds exclusively dedicated to finance eligible green projects aligned with the four main components of the GBP: (i) use of proceeds; (ii) evaluation and selection process; (iii) management of proceeds; and (iv) reporting.

i. Use of proceeds

The GBP recommend that issuers report on their use of green bond proceeds. This allows funds to be tracked into environmental projects, providing investors with confirmation that the funds are used for the purpose promised by the issuer, and facilitating estimations of the impact of the bond. To this end, the GBP recognize the following broad green project categories: climate change mitigation, climate change adaptation; natural resource conservation; biodiversity conservation; and pollution prevention and control. These categories support green projects, such as for: the production and transmission of renewable energy; the refurbishment of buildings to improve energy efficiency; environmentally sustainable agriculture; clean transportation; infrastructure for sustainable water; and wastewater management.

ii. Evaluation and selection process

Under the GBP, the issuers must inform investors about: (i) the environmental sustainability objectives of the green projects funded by the bond proceeds; (ii) the process by which they determine how they fit within the eligible green project categories; and (iii) any related eligibility criteria. See Table 2 below for eligible categories and their link to the SDGs. For example, all measures are used to manage potential environmental risks that could be caused by the project.

iii. Management of proceeds

The issuer must track the proceeds. For example, separating them with appropriate accounting controls from the proceeds of other non-green bond issuances. It is recommended that this should be supplemented by an external review by an auditor to verify the accounting methodology and allocation of funds.

iv. Reporting

The issuers must maintain and make available all information on the use of the proceeds from the bonds. The GBP recommend the provision of qualitative and quantitative indicators of the performance and impact of green projects.

Table 2 – Eligible project categories and the SDGs

Sustainable Development Goals	Eligible categories for funded projects	
	ICMA Green Bond Principles	*ICMA Social Bond Principles*
SDG 1 **NO POVERTY**	Climate change adaptation (Target 1.5)	Access to essential services (Target 1.4) Affordable housing (Target 1.4) Socioeconomic advancement and empowerment (Targets 1.1, 1.2, 1.3, 1.4, 1.5)
SDG 2 **ZERO HUNGER**	Eco-efficient and/or circular economy adapted products, production technologies and processes	Access to essential services (Target 2.3) Affordable basic infrastructure (Target 2a) Food Security (Targets 2.1, 2.2, 2.3, 2c) Socioeconomic advancement and empowerment (Targets 2.3, 2.5, 2a, 2c)
SDG 3 **GOOD HEALTH AND WELL-BEING**	Pollution prevention and control (Target 3.9) Renewable energy (Target 3.9)	Access to essential services (Targets 3.1, 3.2, 3.3, 3.4, 3.5, 3.7, 3.8, 3b, 3c) Affordable basic infrastructure (Target 3.6)
SDG 4 **QUALITY EDUCATION**		Access to essential services (Targets 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4a, 4c) Socioeconomic advancement and empowerment (Targets 4.4, 4.5)
SDG 5 **GENDER EQUALITY**		Socioeconomic advancement and empowerment (Targets 5.1, 5.5, 5b)
SDG 6 **CLEAN WATER AND SANITATION**	Sustainable water and wastewater management (Targets 6.1, 6.2, 6.3, 6.4, 6.5, 6a, 6b) Terrestrial and aquatic biodiversity conservation (Target 6.6)	Affordable basic infrastructure (Targets 6.1, 6.2, 6.3, 6.4, 6b)
SDG 7 **AFFORDABLE AND CLEAN ENERGY**	Energy efficiency (Targets 7.3, 7a) Renewable energy (Targets 7.2, 7a)	Affordable basic infrastructure (Targets 7.1, 7b)
SDG 8 **DECENT WORK AND ECONOMIC GROWTH**	Eco-efficient and/or circular economy adapted Products, production technologies, and processes (Target 8.4) Energy efficiency (Target 8.4) Renewable energy (Target 8.4)	Access to essential services (Targets 8.3, 8.6, 8.10) Employment generation (Targets 8.2, 8.3, 8.5, 8.6, 8.9) Socioeconomic advancement and empowerment (Targets 8.3, 8.5, 8.6, 8.7, 8.8)
SDG 9 **INDUSTRY INNOVATION AND INFRASTRUCTURE**	Energy efficiency (Target 9.4) Renewable energy (Target 9.1)	Access to essential services (Targets 9.3, 9c) Affordable basic infrastructure (Targets 9.1, 9a, 9c) Employment generation (Target 9.2)
SDG 10 **REDUCED INEQUALITIES**		Access to essential services (Target 10.2, 10c) Socioeconomic advancement and empowerment (Targets 10.1, 10.2, 10.3, 10.7)

SDG 11 **SUSTAINABLE CITIES AND COMMUNITIES**	Clean transportation (Target 11.2) Eco-efficient and/or circular economy adapted Products, production technologies and processes (Target 11b) Environmentally sustainable management of living natural resources and land use (Targets 11.7, 11a) Green buildings (Target 11c) Pollution prevention and control (Target 11.6) Renewable energy (Target 11c) Sustainable water and wastewater management (Target 11.5)	Affordable basic infrastructure (Targets 11.1, 11.2) Affordable housing (Target 11.1) Socioeconomic advancement and empow-erment (Target 11.5)
SDG 12 **RESPONSIBLE PRODUCTION AND CONSUMPTION**	Eco-efficient and/or circular economy adapted products, production technologies and processes (Target 12.5) Environmentally sustainable management of living natural resources and land use (Target 12.2) Pollution prevention and control (Targets 12.4, 12.5) Renewable energy (Target 12.4) Sustainable water and wastewater management (Targets 12.2, 12.5)	Food security (Target 12.3)
SDG 13 **CLIMATE ACTION**	Climate change adaptation (Targets 13.1, 13.2, 13.3, 13b) Climate change mitigation (Targets 13.1, 13.3)	
SDG 14 **LIFE BELOW WATER**	Environmentally sustainable management of living natural resources and land use (Targets 14.4, 14.6, 14a) Terrestrial and aquatic biodiversity conservation (Targets 14.1, 14.2, 14.3, 14.5, 14.6, 14a)	Socioeconomic advancement and empowerment (Target 14b)
SDG 15 **LIFE ON LAND**	Environmentally sustainable management of living natural resources and land use (Targets 15.7, 15.8, 15a, 15c) Terrestrial and aquatic biodiversity conservation (Targets 15.1, 15.2, 15.3, 15.4, 15.5, 15b)	Socioeconomic advancement and empowerment (Target 15.6, 15.c)

Source: International Capital Markets Association (ICMA) (2020). Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals.

While Table 2 above maps out the ICMA standards for the SDGs, there are currently no global standards for SDG bonds, as opposed to green, social, and sustainability bonds as mentioned above. The United Nations Development Programme (UNDP) has, however, issued the SDG impact standards for bond issuers. The standards apply to all issuers, sovereign and corporate, and set out a framework for decision making to assist issuers in developing and implementing an impact strategy which will contribute to the achievement of the SDGs. The standards complement existing bond principles, frameworks, and taxonomies (e.g., ICMA, the EU Taxonomy for Sustainable Activities, and the EU Green Bond Standard). By focusing on issuers' impact management and decision-making practices, the standards help to fill some of the gaps in current market practice.[23]

An additional important choice is the decision between an internationally-recognized and a local bond issuance framework. While the former may not be suitable if the target investors are domestic, the latter may be insufficient for projects with a mandate to raise capital among offshore investors, who may not be familiar with local markets and regulations.

Some domestic frameworks in the Asia-Pacific region include Malaysia's sustainable and responsible investment framework for the *Sukuk* market[24] (Box 3) and Indonesia's domestic taxonomy.[25] Even when a local framework is developed, it is important to understand how it is aligned with the global frameworks.

Box 3: Malaysia's sustainable and responsible investment framework

With local Islamic banks identifying the absence of a green taxonomy as a major hurdle in implementing sustainable finance in the country, Bank Negara Malaysia (BNM) worked with the World Bank and the Securities Commission Malaysia (SC) to develop the principles that would support the Malaysian green taxonomy and help Malaysia's financial sector classify green assets transparently and consistently. The result was the sustainable and responsible investment framework of 2019, which is in accordance with international standards and best practices and must be followed by Malaysian issuers of green Sukuk. Eligible projects include preserving and protecting the environment and natural resources, conserving the energy use, addressing or mitigating specific social issues, or pursuing positive social outcomes, particularly but not exclusively for a target population. The issuance of green Sukuk in the country also contributes to the process of greening the financial sector.

Sources: Securities Commission Malaysia (2019). Sustainable and Responsible Investment Sukuk Framework: An Overview.

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23 UNDP (2021a). SDG Impact Standards Bond Issuers.
24 Securities Commission Malaysia (2019). Sustainable and Responsible Investment Sukuk Framework: An Overview.
25 Otoritas Jasa Keuangan Republik Indonesia (2017). The Issuance and the Terms of Green Bonds.

C. Arrange an independent verifier review

A credible independent review and certification can protect the issuer's reputation and provide investors with confidence about the quality of investments being made. A verifier is an independent consultant appointed to give a "second-party opinion (SPO)" that the issuer is complying with the requirements of the bond framework selected for the issuance. While bond issuance frameworks are often flexible and can be adjusted over time, the issuer should consider the version of the selected framework for a specific issuance as an essential document that needs to be complied with. The verifier will review the alignment of the proposed projects to be funded by the bond issuance with the eligible project categories in the selected framework, as well as: the use of proceeds; the process for project evaluation and selection; the management of proceeds; and the reporting process. 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.[26] It is also possible to seek an assurance (or a limited assurance) by a consultancy (e.g., the Big Four accounting firms).

D. Credit enhancement

Investors will care most about the credit risk profile of the proposed bond, in which they are invited to invest. They will review the issuer's financial profile thoroughly and assess the viability of the projects being financed. This review will rely on the issuer's historical performance as a borrower and the projections of future cash flow, which the issuer can present to them. Often, a project may not reach the necessary thresholds for investors to consider them as a viable investment. This is the case, for example, if the future cash flows are uncertain due to the execution risk of a project, or if the technology is unproven or maybe disrupted before the end of the project, or when the geography of the project is new to the issuer who may be unfamiliar with the risks.

To alleviate these concerns, it is possible to use credit enhancement tools such as contracting with a third-party guarantor to protect the project against some of these risks. There are different forms of guarantees with varying levels of risk coverage and loss structuring. Establishment of a first loss guarantees is a consideration especially for projects with a higher risk threshold. First loss guarantees can act as catalytic capital which attracts investors and provides a comfortable risk threshold. Blended finance through the use of official development assistances (ODA) funds is also one form of capital that can be tapped for a first loss.

GuarantCo, for instance, is a credit enhancement provider established to assist emerging economies in providing financial risk management products and services, including local credit guarantees to develop capital markets. The size of the guarantee available for a single transaction can vary between USD 5 million and USD 50 million (local currency equivalent) with a maximum tenor of 15 years. For example, GuarantCo provided a VND 1.15 trillion (USD 50 million) guarantee with a 10-year tenor to the Ho Chi Minh Infrastructure Investment JSC to help construct a four-lane expressway in the Mekong delta as investors were

[26] Climate Bond Initiative (2019). Climate Bonds Standard & Certification Scheme: Guidance for Verifiers.

unaccustomed and unable to accept the risk of project construction and operations.[27]

E. Investor outreach

Establishing strong links with investors is critical to a successful thematic bond issuance. The issuer will benefit from networking with investors early on, and making sure investors know their entity. One possible method for investor outreach is a "non-deal roadshow." A "roadshow" is a presentation to potential investors by the bond issuer. A "non-deal roadshow" is organized before the bond launch. For example, an entity working with an investment bank that has access to investors can jumpstart the engagement process with potential investors by first building up a reputation and gaining valuable knowledge about their preferences.

It is also possible to build investor relationships at the various conferences that congregate investors in regional financial centres such as Hong Kong, Singapore, and Tokyo. Many conferences have specific themes, which garner investors with particular mandates. By joining these conferences, a potential issuer comes into contact with potential investors with the potential to build long-term relationships. Although meeting potential investors will not always yield immediate results (many investors are reluctant to participate in first-time projects) the first step is to create rapport with prospective capital sources that can be leveraged later. These events are also key opportunities to hear from investors about the terms (currency, coupon, maturity, etc.) they are interested in; their perception of the credit quality being presented; and their possible interest at a proposed yield. Following this feedback, the issuer will receive initial feedback from its lead underwriter for pricing discussions. This phase may be shortened in the case of an entity with a history of similar transactions, a strong credit profile, and a high-quality guarantor for the project.

F. Financial risk management

Similar to the issuance of conventional bonds, the issuance of thematic bonds also raises refinancing risks and risks associated with exchange rate and interest rate volatility. In the case of sovereign bonds, the risk level of a debt instrument depends on its size, maturity, coupon rate structure, and currency composition.[28] Some of these factors have trade-offs. Shorter-maturity bonds might incur lower financing cost, whereas they would increase the refinancing risk as governments need to borrow more often. In a country where the capital market is small, illiquid, and not sufficiently deep, foreign borrowing may provide a longer maturity period and/or lower costs than domestic borrowing; however, this would increase exposure to exchange rate and interest rate volatility which is typically uncontrollable for the issuer.[29] Risks in foreign exchanges and interest rates need to be assessed for guarantees as well, particularly cases in which the guarantor is a foreign entity.

The risk levels in sovereign bonds also vary across Asia-Pacific countries. In countries such as India, Malaysia, the Republic of Korea, and Thailand, the exchange rate and refinancing risks are low because the majority of government debts are denominated in local currencies and have medium- to long-term maturities. In Thailand, for example, the coupon rate risk is limited because most

[27] GuarantCo (2010). GuarantCo provides VND 1,150 billion (circa USD 50 million) guarantee to Ho Chi Minh Infrastructure Investment JSC.
[28] Singh, Charan, and Vatcharin Sirimaneetham (2021). Adopting good practices on public debt management in Asia and the Pacific. MPFD Policy Brief, No. 119. ESCAP.
[29] Ibid.

of the sovereign bonds are contracted at fixed coupon rates. In contrast, roughly one-third of Pakistan's government bonds are denominated in foreign currencies and about half have floating coupon rates, making the country more vulnerable to exchange rate and interest rate volatility. For countries with small capital markets, it is important to develop a base of domestic investors to provide a stable and inexpensive source of domestic financing to minimize refinancing risks. Finally, while stable exchange rates are required to minimize risks to foreign currency-denominated debt, there is also evidence that excessive debt build-up contributes to exchange rate volatility.[30] This highlights the importance of a comprehensive debt surveillance framework which monitors both public and private debt build-up.[31]

G. Listing and credit rating

There are additional various factors that need to be considered by the issuer when structuring thematic bonds. For example, an issuer may decide to list the bonds on a stock exchange, so that it can be traded between investors. Also, the bonds will likely be rated by a credit rating agency, either locally or internationally. The issuer may decide to request a credit rating for the bonds to assess the probability of default and have an indicator for the level of investment risk. Agencies such as Moody's, or Standard & Poor's, assess the financial position and creditworthiness of an issuer and assign a credit rating to its bond issue. A domestic rating agency, such as Pefindo in Indonesia, TRIS Rating in Thailand, or RAM in Malaysia, may be a better option for domestic issuance, as well as more cost-effective for the issuer.

H. Set up tracking and reporting

In the pre-issuance stage, the issuer will also need to establish systems to track and report the use of proceeds during the life of the bond (see Section IV). The issuer needs to keep and make available information on its use of the proceeds from thematic bonds. According to the Climate Bonds Initiative survey mentioned earlier, the overwhelming majority of respondents stated "they would not buy a green bond if, at issuance, the proceeds were not clearly allocated to green projects," and more than half (55 per cent) of respondents said "they would definitely sell a green bond if post-issuance reporting were poor."[32] The required reporting adds to the bonds' reliability by forcing the borrower to increase the level of information it must disclose. Therefore, the issuer must establish procedures for tracking and reporting on the use of the proceeds. To ensure all proceeds are applied to the agreed projects, the sum of the cash on hand and amounts invested in assets or projects must not be less than the bond's amount.[33]

I. Legal opinion and documents

The lead underwriter's lawyers typically prepare the primary legal documents for the issue. The lawyers start to prepare the documents as soon as they are notified of the proposed bond issue. They then circulate first drafts to the issuer and other parties' lawyers for comments. The terms of the issue are then negotiated, and other drafts are produced until all documents have been agreed. The prepared documents generally include: a

[30] Park, Donghyun, Arief Ramayandi, and Shu Tian (2020). Debt Buildup and Currency Vulnerability: Evidence from Global Markets. Asia Development Bank. Economic Working Paper Series No. 623.
[31] Ibid.
[32] Climate Bonds Initiative (2019a). p. 4.
[33] International Capital Markets Association (ICMA) (2021b). Green Bond Principles Voluntary Process Guidelines for Issuing Green Bonds.

prospectus; a number of different agreements, such as a subscription agreement and a draft term sheet; legal opinions; and a closing memorandum.

The lawyers for both the issuer and the lead underwriter also carry out a due diligence exercise on the issuer. The issuer's lawyers provide the legal opinion on the issuer's capacity to issue the bonds, while the lead underwriter's lawyers determine the creditworthiness of the issuer and ascertain if there are any other risks associated with the issuer. The presence of a law firm will also be required for discussion with the bond market where the bond may be listed, as the market's specific disclosures may be required in the bond prospectus.

5. Issuance Stage

The next stage in the process is the actual bond launch. The issuer announces his or her intention to issue bonds on the market. Unless the issuer intends to sell the bonds to specific investors, such as large institutional investors (e.g., pension funds, housing authorities, insurance companies, and banks) or individuals, the lead underwriter and issuer will need to find investors to buy the bonds once they are issued.

A. Issuance day

On the day of issuance, the lead underwriter publicly announces the issue, which appears on the electronic screens for trading securities in the capital markets. On the issuance day, the lead underwriter sends a term sheet containing the proposed terms of the bond issue to the prospective underwriters. The term sheet includes the proposed terms of the bond issue and any selling restrictions, together with the management agreement outlining the respective fees. The prospective underwriters then decide whether they want to join the syndicate of banks and underwrite the issue. If they join the syndicate, the sales desks at the underwriters start seeking investors by telephoning/emailing their contacts, conducting roadshows and meetings with investors, and selling the bonds to them (this is called pre-selling the bonds). If the bonds are to be cleared and settled through a clearing system, as they typically are, the lead underwriter contacts the relevant clearing system with the details of the bond issue and the arrangements for closing. If the bonds are to be listed, the applicable listing authority rules need to be followed, in particular with respect to specific disclosures required for certain types of investors. The lead underwriter's lawyers send the documents to the appropriate parties. Terms of the issue are negotiated between the parties, and other drafts are developed until all documents have been agreed upon.[34]

B. Marketing and roadshow

The bond is now ready to be officially marketed. Although the lead underwriter has already laid much of the groundwork — it was done earlier during investor outreach during the pre-issuance stage (see Section IV again) — he/she is still working to determine investor interest in the bond issue and the proposed transaction structure. There are multiple ways to organize this marketing phase. The traditional method has been through physical meetings, but this is changing to the online release of the marketing information, particularly under the COVID-19 pandemic. During the official marketing roadshow, the "initial price target" will be given to investors who are approached. This is the return that they are being offered for the issue. It is usually expected that the initial price target will be higher than the final price, in order

[34] Thomson Reuters (2021). Bond issues: step-by-step guide.

to demonstrate that there is strong investor interest in the transaction.

A successful transaction is a deal that has seen investors' interest exceed the size on offer and in which the final coupon or yield is lower than the initial level, at which the marketing phase has started. Very commonly, the initial size offered to investors can be increased if the interest from investors is higher than expected. This is a common practice in the world of initial public offerings (IPO) and is called the "greenshoe option." Typically, before starting the marketing phase, underwriters will have agreed with the issuer that, should investors' interest exceed the desired size, they will increase the bond size. This is a positive sign that a transaction has been successfully executed.

During this time, the lead underwriter will reach out to their clients with the term sheet highlighting the investment opportunity parameters, and seeking feedback on potential interest. Within the next few weeks, other underwriters will engage in one-on-one meetings with clients to explain the nature of the investment opportunity and assess their clients' appetite for the proposed deal. This period is critical for understanding whether the bond will meet expectations and the risk appetite of investors. These conversations will then be collated to assess whether a transaction is possible or not.

The marketing phase concludes with a short-listing of target investors who have expressed interest in the transaction. This is usually called the "book-building" phase, when the lead underwriter consolidates all the investors' interests and determines the appropriate price level, depending on market conditions. The participating underwriters can select the correct price at this stage, attracting sufficient investors to close the transaction at the desired size.

C. Signing, closing, and pricing

The issue of the bonds is usually between one and three weeks after launch. Once the legal documents are signed by the relevant parties, the issuer delivers the bonds to the investors — or now bondholders — through the clearing agent, and the bondholders pay the issuer. This phase is divided into signing, closing, and pricing. Signing is when the subscription agreement is signed, and the listing authority approves the prospectus. Closing is when the documents are signed, the bonds are delivered to the bondholders, and payment is transferred to the issuer. Pricing will also lead to a closing of the primary issuance when the bond is priced, listed, and the proceeds are exchanged. This is done by the lead underwriter, who then disseminates a press release with the final details of bond yield, size, and the amount of interest that the bond was able to attract.

6. Post-issuance Stage

A. Monitor use of proceeds and annual reporting

Once the thematic bond has been issued and the proceeds paid out, the verifier will request information on how the capital has been allocated. They will verify if the funds have been correctly distributed across the projects, which have been identified as part of the pre-issuance verification process. This exercise will be accompanied by a post-issuance report, confirming that the issuers have complied with the thematic bond framework. In the case of certification against the Climate Bond Standard, this post-issuance report is needed to confirm the post-issuance certification.

To comply with market practice, the issuer must commit to investing the bond proceeds relatively quickly. Under the Climate Bond Standard for Green Bonds, 24 months is the maximum for an issuer to invest in the green projects eligible under the green bond framework. For an SDG bond, there is no such stringent time frame, but it is expected that the proceeds will be funded in a reasonable amount of time. An issuer cannot use the proceeds for something else than a project that has been deemed eligible under its SDG bond framework, at the risk of causing damage to their reputation as an issuer.

The issuer will also need to publish annual reports confirming that the funds are still correctly allocated to the agreed-upon projects. This can be done by an auditor or in a letter signed by an authorized officer. The reporting after the issuance can be done as part of the annual report of the issuer and sometimes represents only a couple of paragraphs in the footnotes or separately as part of a sustainability report, which some regulators are now asking listed companies to prepare each year. This is an opportunity for the issuer to communicate broadly regarding the successful capital raising exercise. This is also an opportunity for the issuer to explain to the outside world the strategy behind the bond, be it for social, green, sustainable, or SDG-related matters or for ESG-related actions. A strong environmental and social strategy is becoming increasingly relevant for companies and sovereign issuers. Therefore, it is essential that the reporting on specific thematic bond issues be aligned with the issuer's corporate strategy. Post-issuance disclosure provides transparency, ensures accountability, and underpins the credibility of the bonds. As the market grows, so does interest in using proceeds and impact reporting to inform investors and all other stakeholders about the impact achieved by the thematic bond issue.

B. Impact measurement

The measurement of the thematic bond issue's impact can be undertaken to assess whether the results align with the announced outcomes. It is an opportunity for the issuer to demonstrate that the financing has met the expectations, explain if/why there have been shortcomings on the expected results, and develop a dialogue with investors. Research on the impact of thematic securities is quite extensive and can be consulted to establish a solid basis for evaluation.

There are several frameworks available for measuring investments' extra-financial returns. The most important and widely used frameworks include the Social Performance Task Force (SPTF) and the IFC Performance Standards.[35] A recent report by the Climate Bonds Initiative analyzed the post-issuance reporting on the use of proceeds for green bonds and found that 79 per cent of bonds have some form of impact reporting in place.[36] It noted that: "There is increasing investor demand for impact reporting."[37] Disclosure of impact metrics is, therefore, fundamental to attract and retain investment.

C. Prepare for future deals

A successful thematic bond issue facilitates the ease of which the operation for subsequent fund-raising opportunities can be repeated by the issuer. Thematic bonds are a highly effective means to obtain the commitment of long-term, quality investors, raising the pool of capital available to borrowers. The issuers of successful thematic bonds should consider preparing future issues as part of their regular course of business. An issuer who succeeded in leveraging a first bond issued may wish to participate in conferences to present its overall ESG and financial strategies and regularly publish the progress of bonds using proceeds from previously issued bonds.

[35] Social Performance Task Force (2021). What we do.;IFC (2021). Performance Standards.
[36] Climate Bonds Initiative (2019b). Post Issuance Reporting in the Green Bond Market.
[37] Ibid. p. 3.

7. Conclusions

Issuing a thematic bond can serve as a solution to mobilize capital towards post-COVID-19 socioeconomic recovery, the achievement of the SDGs, and Paris Agreement commitments. As such, the multi-staged process should be treated not only as a way of raising financing but also as a means to demonstrate an issuer's environmental and social commitments. Consequently, clients, suppliers, and employees are made aware that the issuer considers sustainable development an integral part of their normal operations. Governments and regulators will need to increasingly develop new regulations to facilitate clients to choose suppliers with a strong commitment to the ESG principles.

However, a critical policy action that remains lacking, particularly in countries in special situations, is the requirement to align bond taxonomies and frameworks with international best practices. The taxonomies and frameworks used by different countries and stakeholders are highly varied and non-existent in some countries, and this discourages international investors. Adopting an internationally-recognized framework and establishing a common, well-renowned taxonomy is crucial to leveraging the potential of thematic bonds and gaining direct access to international capital markets. One example of the current development trend is green taxonomy, a classification system that identifies activities and investments delivering priority environmental projects.

Although some stakeholders are already actively engaged with established international bond frameworks and taxonomies, such efforts need to be encouraged and nurtured further in many countries. There is also a need to identify institutional and capacity gaps, particularly in countries in special situations that are only starting to engage with green, social, sustainability, and SDG bonds. Furthermore, tailored training and capacity building programmes to co-design taxonomies that incorporate the diverse needs of different stakeholders and industry sectors are necessary. The advent of green, social, sustainability, and SDG bonds is an exciting innovation that can help address climate change and support the SDGs Agenda, and leveraging this opportunity will be a fundamental aspect of financing the recovery of pandemic-ravaged economies and the pursuit of sustainable, peaceful, and prosperous societies.

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