



Technical Assistance Report

Project Number: 53300-001
Knowledge and Support Technical Assistance (KSTA)
March 2020

Creating Ecosystems for Green Local Currency Bonds for Infrastructure Development in ASEAN+3

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Asian Development Bank

ABBREVIATIONS

ABMI	–	Asian Bond Markets Initiative
ABO	–	AsianBondsOnline
ACMF	–	ASEAN Capital Markets Forum
ADB	–	Asian Development Bank
ASEAN	–	Association of Southeast Asian Nations
ASEAN+3	–	ASEAN, Japan, the People’s Republic of China, and the Republic of Korea
CGIF	–	Credit Guarantee and Investment Facility
PRC	–	People’s Republic of China
TA	–	technical assistance
WC-CMD	–	Working Committee on Capital Market Development

NOTE

In this report, “\$” refers to United States dollars.

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KNOWLEDGE AND SUPPORT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 53300-001	
Project Name	Creating Ecosystems for Green Local Currency Bonds for Infrastructure Development in ASEAN+3	Department/Division	ERCDC/EROD
Nature of Activity	Research and Development	Executing Agency	Asian Development Bank
Modality	Regular		
Country	REG (BRU, CAM, INO, KOR, LAO, MAL, MYA, PHI, PRC, SIN, THA, VIE)		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
		Total	0.00
3. Operational Priorities		Climate Change Information	
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability		Climate Change impact on the Project	Low
✓ Strengthening governance and institutional capacity			
✓ Fostering regional cooperation and integration			
Sustainable Development Goals		Gender Equity and Mainstreaming	
SDG 9.1		No gender elements (NGE)	✓
SDG 12.6			
		Poverty Targeting	
4. Risk Categorization Low			
5. Safeguard Categorization Safeguard Policy Statement does not apply			
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		0.00	
None		0.00	
Cofinancing		0.50	
People's Republic of China Poverty Reduction and Regional Cooperation Fund (Full ADB Administration)		0.50	
Counterpart		0.00	
None		0.00	
Total		0.50	
Currency of ADB Financing: US Dollar			

I. INTRODUCTION

1. The knowledge and support regional technical assistance (TA) will promote cooperation among policymakers in the Association of Southeast Asian Nations (ASEAN), Japan, the People's Republic of China (PRC), and the Republic of Korea (collectively known as ASEAN+3) in developing green local-currency-denominated bonds for infrastructure development in ASEAN+3.

2. The TA is aligned with the vision and value addition of the Asian Development Bank's (ADB) Strategy 2030 by promoting green, sustainable, resilient, and inclusive infrastructure investments.¹ The TA is also aligned with the Strategy's operational priority on fostering regional cooperation and integration, particularly by strengthening cooperation in the finance sector and strengthening subregional initiatives.² In particular, ADB's Strategy 2030 stresses that ADB will pursue greater collaboration with the ASEAN+3 Asian Bond Markets Initiative (ABMI) and the Credit Guarantee and Investment Facility (CGIF). The TA is consistent with operational direction 2 (raising competitiveness in connected markets) of ADB's Operational Plan for Regional Cooperation and Integration, 2016–2020.³ It facilitates open and dynamic consultation among ASEAN+3 member countries and stakeholders to ensure broad-based consensus and ownership in implementing and managing the ABMI, an initiative launched to promote monetary and financial cooperation and integration in ASEAN+3. The TA will be implemented under the guidance of ASEAN+3 finance ministers and central bank governors as stipulated in the Asian Bond Markets Initiative Medium-Term Road Map, 2019–2022.⁴

II. ISSUES

3. ASEAN+3 governments established the ABMI in 2003 to boost the development of local-currency bond markets to help mitigate currency and maturity mismatch problems. After the 1997 Asian financial crisis, policymakers recognized that more developed bond markets could help the region mobilize local-currency savings to meet long-term investment needs, particularly for infrastructure development. This would have the added benefit of reducing vulnerability to sudden reversals of capital inflows, thereby strengthening the financial stability of the region. ASEAN+3 governments have tasked ADB to serve as the ABMI secretariat.

4. ASEAN+3 governments have made significant progress in developing local-currency bond markets. The aggregated outstanding amount of local-currency bonds issued in ASEAN plus the PRC and the Republic of Korea grew from \$1.35 trillion in 2003 to \$16.00 trillion as of December 2019. Indonesia and Thailand made concerted efforts to develop local-currency bond markets by, among other measures, improving public debt management capacity. The Republic of Korea and Malaysia have well-developed bond markets that are balanced between the government and corporate segments, with significant depth in both. The PRC is home to the ASEAN+3's dominant bond market in terms of size.⁵ Local-currency bond markets have become a key source of funding for infrastructure projects in many East Asian emerging economies.

¹ ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

² The TA first appeared in the business opportunities section of ADB's website on 2 August 2019.

³ ADB. 2016. *Operational Plan for Regional Cooperation and Integration, 2016–2020: Promoting Connectivity, Competitiveness, Regional Public Goods, and Collective Action for Asia and the Pacific*. Manila.

⁴ ABMI. 2019. [ASEAN+3: Asian Bond Markets Initiative Medium-Term Road Map, 2019–2022](#). Nadi, Fiji. ASEAN+3 finance ministers and central bank governors endorsed the road map at its 22nd meeting in Nadi, Fiji.

⁵ ADB. 2019. *Good Practices For Developing A Local Currency Bond Market: Lessons from the ASEAN+3 Asian Bond Markets Initiative*. Manila.

5. Building on these achievements, ASEAN+3 policymakers are looking to create ecosystems to develop green local-currency bonds to support much-needed infrastructure investment, taking into account the region's exposure to a range of climate conditions and extreme weather events. ASEAN+3 finance ministers and central bank governors endorsed the ABMI Medium-Term Road Map 2019–2022 in May 2019 to guide ABMI activities through 2022, including an initiative to develop the market of green bonds for infrastructure investment.

6. Despite increased awareness among bond issuers and investors in ASEAN+3 of the impact of disasters triggered by natural hazards and climate change, most green bonds from ASEAN+3 issuers are denominated in United States dollars. According to the Climate Bonds Initiative, almost 50% of green bonds issued in ASEAN were denominated in United States dollars.⁶ To facilitate green bonds issuance in local currencies, ASEAN+3 policymakers must address several constraints.

7. The first constraint relates to a lack of supply of green bonds in ASEAN+3 member countries. Understanding of the green bond issuance process and of post-issuance reporting requirements is limited, and there is much uncertainty surrounding which assets and projects qualify as green and how green bonds can be structured to ensure compliance with international standards and practices. Many potential issuers see green bonds as more expensive than conventional bonds because of the added work involved in ensuring compliance with the green bonds framework, tracking the use of proceeds, and conducting post-issuance reporting. Securing an external review and certification for green bonds is also costly. Administrative costs can range from \$29,000 to \$117,000 for pre-issuance through ongoing reporting, assuming that the net proceeds of the green bonds are fully deployed after 1 year.⁷ Such costs can seem excessive from an issuers' point of view.

8. The second constraint relates to the lack of demand for green bonds from investors in ASEAN+3 member countries. International investors that consider environmental, social, and governance factors in their investment decisions are not familiar with potential issuers of green bonds, particularly those from ASEAN, making such bonds less attractive to these investors. Furthermore, demand for green bonds by domestic investors in ASEAN+3 countries remains below average because such investors tend to focus strictly on economic returns, while paying little heed to the "greenness" of their investments. Investors, particularly fund managers, are often of the view that they will sacrifice basis points if they invest in green bonds, and worry that their funds will be less competitive. Meanwhile, investors may face reputational risks if their supposedly green investments turn out not to be green or lose their green status. They also face extra costs related to acquiring reliable data and information on the environmental impact of the green bonds they target.

9. The TA is designed to support the creation of ecosystems to develop green local-currency financing in ASEAN+3 based on the assessment and recommendations of the *Promoting Green Local Currency Bonds for Infrastructure Development in ASEAN+3* study, which was submitted to and welcomed by the ASEAN+3 finance ministers and central bank governors at their 21st meeting in May 2018 in Manila, Philippines. The TA activities will be synchronized with regional initiatives such as the ASEAN Capital Markets Forum (ACMF),⁸ the ASEAN Working Committee

⁶ Climate Bonds Initiative. 2019. *ASEAN Green Finance State of the Market*. London.

⁷ ADB. 2018. *Promoting Green Local Currency Bonds for Infrastructure Development in ASEAN+3*. Manila. The People's Republic of China Poverty Reduction and Regional Cooperation Fund supported the publication.

⁸ The ACMF is a forum comprising capital market regulators from 10 ASEAN jurisdictions: Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore,

on Capital Market Development (WC-CMD),⁹ the Technical Assistance Coordination Team under the ABMI,¹⁰ the Asia-Pacific Economic Cooperation Financial Regulators Training Initiative,¹¹ and the ASEAN Catalytic Green Finance Facility under the ASEAN Infrastructure Fund. It is important to note that the Public Management, Financial Sector, and Trade Division of ADB's Southeast Asia Department is providing TA to the ACMF to support discussion among ASEAN securities regulators and to promote ACMF activities to international investing communities.¹² The TA will focus on supporting potential green bond issuers to issue green bonds under international and regional standards, including the ASEAN green bond standards introduced by the ACMF. The TA will also take into consideration activities under the ACMF Roadmap for ASEAN Sustainable Capital Markets, as well as the WC-CMD Sustainable Finance Roadmap. The ACMF and WC-CMD will propose their respective roadmaps to the ASEAN finance ministers for endorsement in March 2020.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

10. The TA is aligned with the following impact: financial stability and support for infrastructure finance deepened.¹³ The TA will have the following outcome: issuance of green local-currency-denominated bonds for infrastructure finance increased.¹⁴

B. Outputs, Methods, and Activities

11. The TA consists of two outputs designed to address constraints associated with developing green bonds in ASEAN+3: (i) regional facility to support green bond issuance established, and (ii) demand for green bonds promoted.

12. **Output 1: Regional facility to support green bond issuance established.** The TA will establish a regional facility to support corporate bond issuers in bringing green bonds to market. The facility will address binding constraints (which vary from country to country) to issuing green bonds, including a lack of market awareness, additional costs associated with issuing green bonds, and a lack of understanding about eligible projects and underlying assets. The facility will partner industry experts such as the Private Sector Operations Department of ADB, the CGIF, the Climate Bonds Initiative, the International Capital Market Association, securities regulators, stock exchanges, bond market associations, and rating agencies in ASEAN+3 to address impediments and challenges. This output will contribute to creating a conducive environment for developing green bond markets in ASEAN+3, paving the way for the establishment of regional

Thailand, and Viet Nam. Established in 2004 under the auspices of the ASEAN finance ministers, the ACMF initially focused on harmonization of rules and regulations before shifting toward more strategic issues to achieve greater integration of the region's capital markets under the ASEAN Economic Community Blueprint 2025.

⁹ WC-CMD, formed under the ASEAN Finance Cooperation Process, focuses on developing, interlinking, and deepening ASEAN's capital markets by building capacity and laying the long-term infrastructure to achieve integration of capital markets in the region.

¹⁰ The Technical Assistance and Coordination Team under the ABMI was established to provide support to individual ASEAN member countries (based on their individual requirements) to promote bond market development through TA projects.

¹¹ The Asia-Pacific Economic Cooperation (APEC) finance ministers established the APEC Financial Regulators Training Initiative in May 1998 to strengthen financial supervision and regulation in Asia and the Pacific by enhancing the analytical and technical capacity of bank supervisors and securities regulators.

¹² ADB. 2019. *Technical Assistance for Promoting an Interconnected, Inclusive, and Resilient Association of Southeast Asian Nations Capital Market*. Manila.

¹³ ABMI. 2019. [ASEAN+3: Asian Bond Markets Initiative Medium-Term Road Map, 2019–2022](#). Nadi, Fiji.

¹⁴ The design and monitoring framework is in Appendix 1.

market practices with regards to green bond issuance processes. The facility, with support from industry experts, will also (i) help potential issuers and underwriters lower issuance costs by guiding them through (a) the process of issuing green bonds under the Climate Bond Standards, Green Bond Principles, and ASEAN Green Bond Standards; and (b) post-issuance reporting requirements, including managing the use of proceeds; and (ii) in certain cases, support issuers to partially offset the higher costs of green bonds issuance and other associated costs. The facility will also explore the feasibility of enhancing the capacity of service providers such as ratings agencies and guarantee companies to provide advice and external review services to green bond issuers in ASEAN+3.

13. **Output 2: Demand for green bonds promoted.** The TA team will partner with the AsianBondsOnline (ABO) team to (i) create a regional green bond information platform on the ABO website, (ii) disseminate information on green bond market developments in ASEAN+3 through the ABO, and (iii) increase investors' awareness of the latest advances in regional green bond markets through the ABO. The TA will continue to explore the feasibility of establishing an ASEAN+3 green bonds exchange-traded fund and an ASEAN+3 green bonds index to help fund managers construct investment products to facilitate intra-regional investment. Through the TA, ASEAN+3 initiatives will be linked with relevant regional initiatives such as the ACMF and the WC-CMD to promote ASEAN green-bonds standards to investors in ASEAN+3 member countries and facilitate intra-regional investment.

C. Cost and Financing

14. The TA is estimated to cost \$500,000, which will be financed on a grant basis by the People's Republic of China Poverty Reduction and Regional Cooperation Fund and administered by ADB.¹⁵ The key expenditure items are listed in Appendix 2.

D. Implementation Arrangements

15. ADB will administer the TA. Staff at the Office of the Chief Economist and the Director General of the Economic Research and Regional Cooperation Department will play leading roles in the implementation of this TA, and ADB staff will also serve as resource persons in consultative discussions with ASEAN+3 member countries, with mission costs to be financed by the TA. The implementation arrangements are summarized in the table.

Implementation Arrangements	
Aspects	Arrangements
Indicative implementation period	March 2020–February 2022
Executing agency	Asian Development Bank (ADB)
Implementing agency	The Office of the Chief Economist and Director General of ADB's Economic Research and Regional Cooperation Department will implement the technical assistance (TA) in close coordination with ADB's Southeast Asia Department (particularly the Public Management, Financial Sector, and Trade Division); East Asia Department (particularly the Public Management, Financial Sector, and Regional Cooperation Division); and Private Sector Operations Department. The Finance Sector Group of the Sustainable Development and Climate Change Department will be consulted throughout the implementation period.

¹⁵ The fund was originally named "People's Republic of China Regional Cooperation and Poverty Reduction Fund" in the 2005 Board paper.

Aspects	Arrangements		
Consultants ^a	To be selected and engaged by ADB		
	Individual selection	International expertise (10 person-months, intermittent)	\$199,800
	Individual selection	National expertise (16 person-months)	\$56,600
Disbursement	The TA resources will be disbursed following ADB's <i>Technical Assistance Disbursement Handbook</i> (2010, as amended from time to time).		

^a Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 3).

Source: Asian Development Bank.

16. **Consulting services.** The TA will require 10 person-months of international and 16 person-months of national individual consultancy services: (i) 6 person-months for an international green bond expert, (ii) 3 person-months for an international green bond verifier, (iii) 1 person-month for an international economics and finance editor, and (iii) 16 person-months for a national research analyst (ADB headquarters). ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions.

IV. THE PRESIDENT'S DECISION

17. The President, acting under the authority delegated by the Board, has approved the Asian Development Bank administering technical assistance not exceeding the equivalent of \$500,000 to be financed on a grant basis by the People's Republic of China Poverty Reduction and Regional Cooperation Fund for Creating Ecosystems for Green Local Currency Bonds for Infrastructure Development in ASEAN+3, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned with Financial stability and support for infrastructure finance deepened (ASEAN+3: Asian Bond Markets Initiative Medium-Term Road Map, 2019–2022) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome Green local-currency-denominated bonds for infrastructure finance increased	By February 2022: At least 5 successful green bonds supported and issued under international and regional green bonds standards (2018 baseline: 0 issuance)	Market consultations with ASEAN+3 member countries, ABMI task force and deputies meetings, TA progress reports	Unsustained strong policy commitment to green financing Unexpected financial shocks and market disruption, which prevent new issuances
Outputs 1. Regional facility to support green bond issuance established 2. Demand for green bonds promoted	By February 2022: 1a. At least 10 potential green bond issuers assisted by the facility depending on their specific demand (2018 baseline: 0) 1b. At least 1 CGIF-guaranteed green bond supported (2018 baseline: 0) 1c. At least 1 green bond with ADB as an anchor investor or guarantor supported (2018 baseline: 0) 2a. Green bond section on ABO website launched (2018 baseline: 0) 2b. Draft feasibility report on the development of an ASEAN+3 green bond ETF and an ASEAN+3 green bond index prepared (2018 baseline: 0)	1a–c. Minutes of market consultations with ASEAN+3 member countries, ABMI task force and deputy meetings, ABO website, TA progress reports, ADB news releases, CGIF news releases 2a–b. ABMI task force meetings, TA progress reports	Unsustained strong policy commitment to green financing
Key Activities with Milestones			
1. Regional facility to support green bond issuance established			
1.1 Establish regional green bond facility to support issuers in bringing green bonds to market (April 2020)			
1.2 Conduct fact-finding missions to selected ASEAN+3 member countries (April–May 2020)			
1.3 Operationalize green bond facility and provide services to potential green bond issuers (April 2020–February 2022)			
2. Demand for green bonds promoted			
2.1 Conduct fact-finding missions to selected ASEAN+3 member countries (March–May 2020)			
2.2 Review existing information on green bonds available on public domains and design a template for the green bond portal on the ABO website (April 2020–August 2020)			
2.3 Jointly launch green bond portal with ABO to publicize TA activities (November 2020)			
2.4 Explore the feasibility of establishing an ASEAN+3 green bonds ETF (July 2021–October 2021)			

2.5 Explore the feasibility of establishing an ASEAN+3 green bonds index to track the regional green bond market (July 2021–October 2021)

Inputs

People's Republic of China Poverty Reduction and Regional Cooperation Fund: \$500,000

Assumptions for Partner Financing
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Not Applicable

ADB = Asian Development Bank; ABMI = Asian Bond Markets Initiative; ABO = AsianBondsOnline; ASEAN+3 = Association of Southeast Asian Nations, Japan, the People's Republic of China, and the Republic of Korea; CGIF = Credit Guarantee and Investment Facility; ETF = exchange-traded fund, TA = technical assistance.

^a ABMI. 2019. [ASEAN+3: Asian Bond Markets Initiative Medium-Term Road Map, 2019–2022](#). Nadi, Fiji.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
People's Republic of China Poverty Reduction and Regional Cooperation Fund ^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	199.8
ii. National consultant	56.6
b. Out-of-pocket expenditures	
i. International and local travel	34.0
ii. Reports and communications	5.0
2. Surveys	15.0
3. Training, seminars, workshops, forum, and conferences	
a. Facilitators and resource persons	54.0
b. Travel cost of ADB staff acting as a resource person ^b	36.0
c. Venue rental and related facilities	10.0
d. Participants	52.5
e. Honorarium	5.0
4. Contingencies	32.1
Total	500.0

ADB = Asian Development Bank; TA = technical assistance.

Note: The TA is estimated to cost \$500,000, of which contributions from the People's Republic of China Poverty Reduction and Regional Cooperation Fund are presented in the table.

^a Administered by ADB.

^b ADB (Budget, Personnel, and Management Systems Department; and Strategy, Policy, and Partnerships Department). 2013. Use of Bank Resources: Regional Technical Assistance and Technical Assistance vs. Internal Administrative Expenses Budget. Memorandum. 26 June (internal).

Source: ADB estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=53300-001-TARreport>

1. Terms of Reference for Consultants