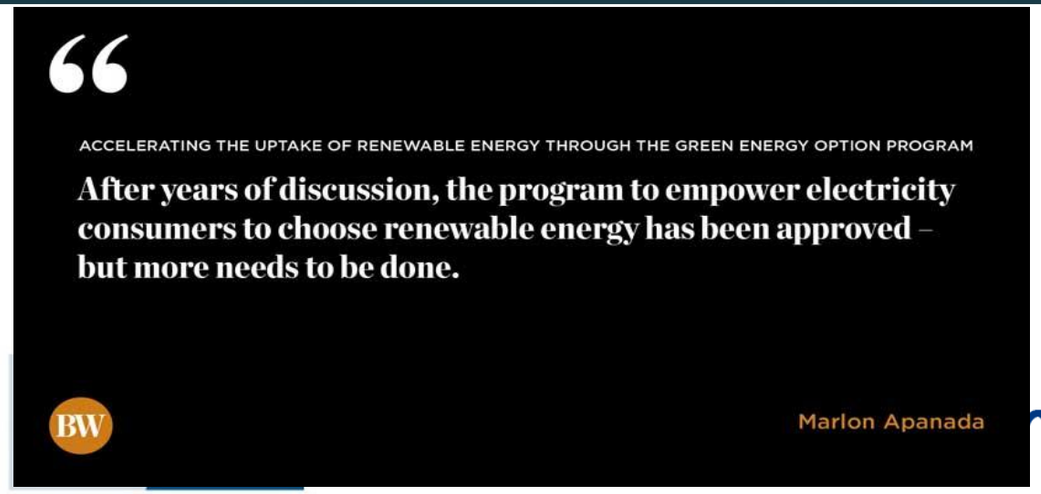
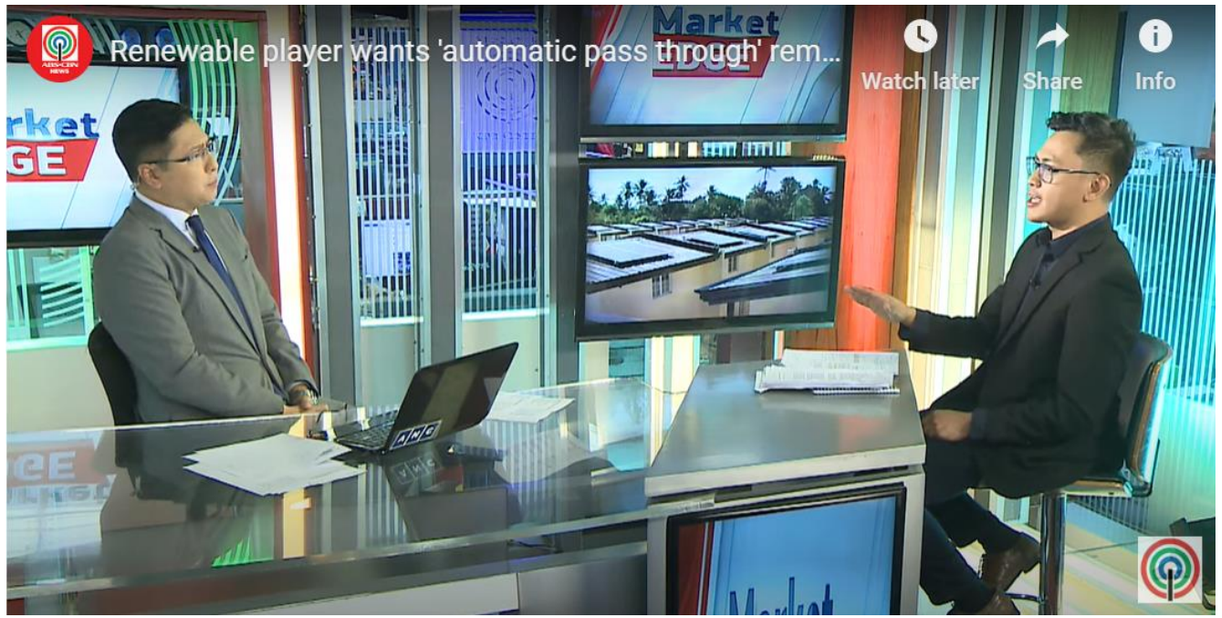
About the Trainer



philstar GLOBAL

Massive redraft of the Philippines energy plan

Marlon Apanada (The Philippine Star ⓘ) - October 3, 2020



About the Trainer

Marlon Apañada

- 17+ years in the clean energy & green finance space
- 40 million USD of private capital sourced for successfully completed clean energy projects
- 10.5 million USD of donor and philanthropic funding raised* for energy transition and climate initiatives

Affiliations

WORLD RESOURCES INSTITUTE
Southeast Asia Engagement Lead

CLEAN ENERGY INVESTMENT ACCELERATOR
Philippines Lead

Greening The Banks
Convenor

green banking
an initiative by RENAC
Certified Trainer

ENGINE INSTITUTE
Interim Executive Director

Education

ATENEO DE MANILA
B.S. Environmental Science

ssee
UNIVERSITY OF OXFORD
Sustainable Finance Certificate

Hochschule für Wirtschaft und Recht Berlin
Berlin School of Economics and Law
M.Sc. – Business Management (Candidate, 2020 Cohort)

BEUTH HOCHSCHULE FÜR TECHNIK BERLIN
University of Applied Sciences
MBA (Candidate, 2018 Cohort)

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** includes initiatives with consortium or partners*

About the Trainer

ENGINE INSTITUTE

Expediting Next-Generation Investments towards a New Economy

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Module 1

Green Finance: Overview

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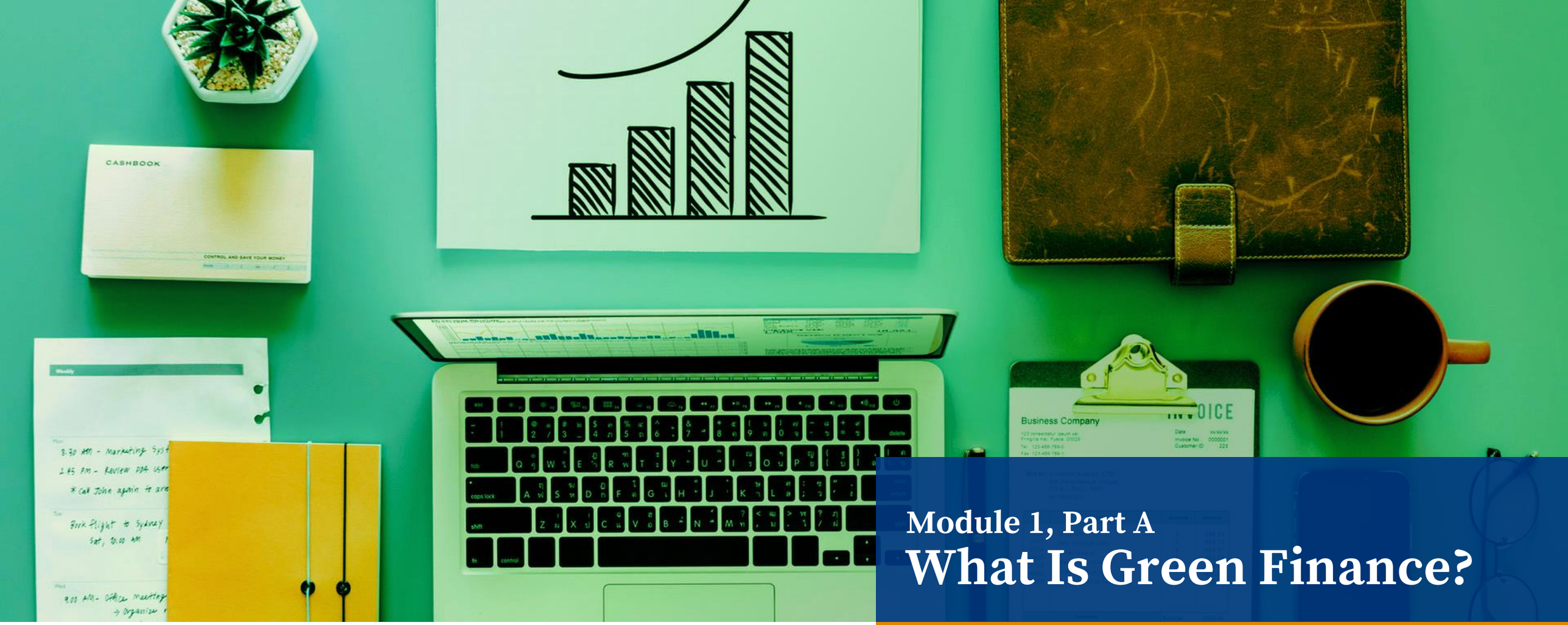

Module 1, Part A

What Is Green Finance?

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What is Green Finance?

Climate Finance

This refers to local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change

Green Finance

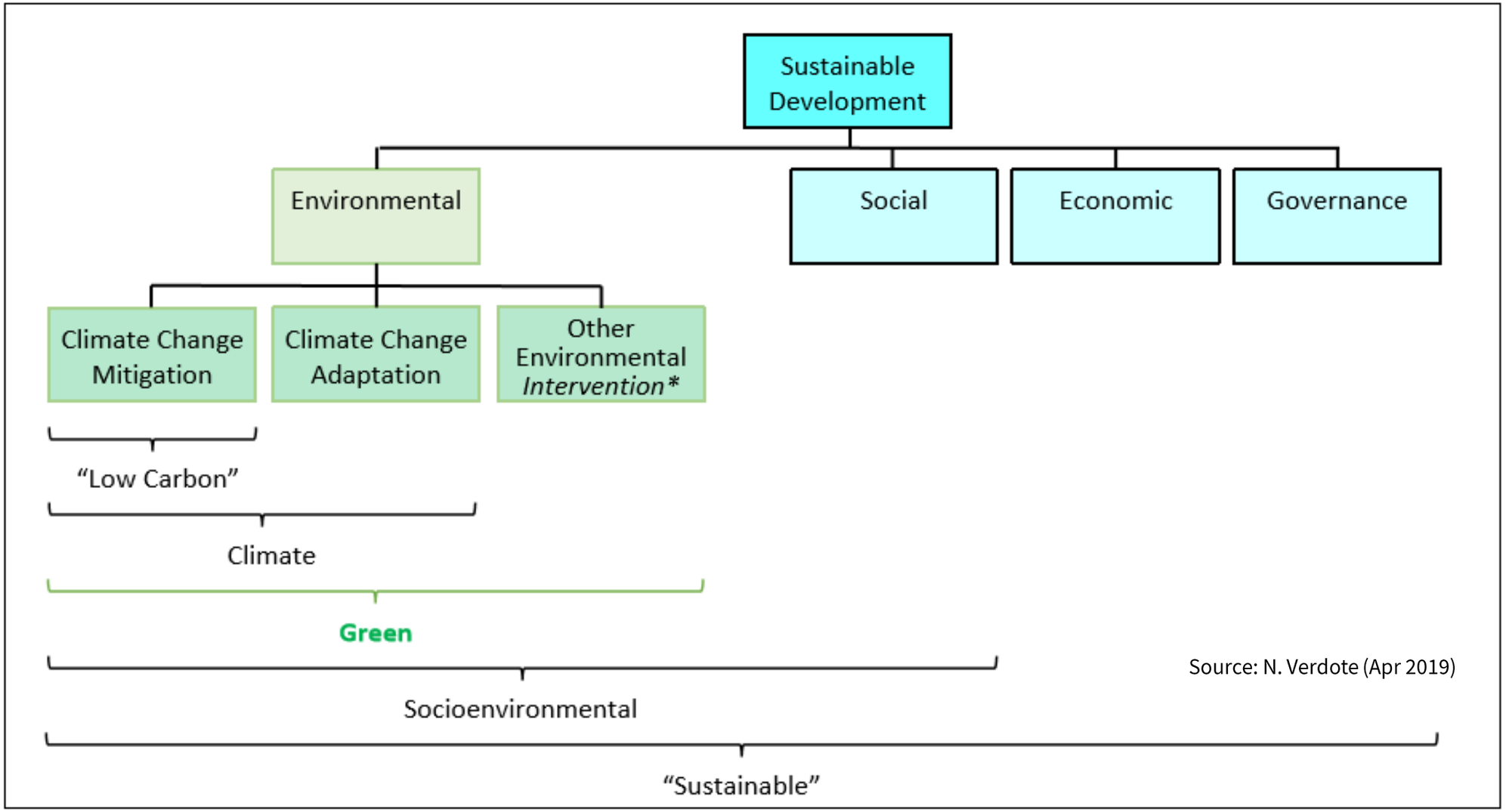
This covers a gamut of financial services and products designed to promote the flow of finance towards green economic activities and projects. Aside from financing to promote climate change and mitigation, green finance also covers environmental improvement and efficiency improvement in natural capital preservation and resource mobilization.

Sustainable Finance

This refers to the provision of finance into investments taking into account environmental, social and governance considerations. It includes a strong green finance component that aims to support economic growth while reducing pressures on the environment. It also encompasses increasing awareness of and transparency on the risks which may have an impact on the sustainability of the financial system and the need for financial and corporate actors to mitigate those risks through appropriate governance.

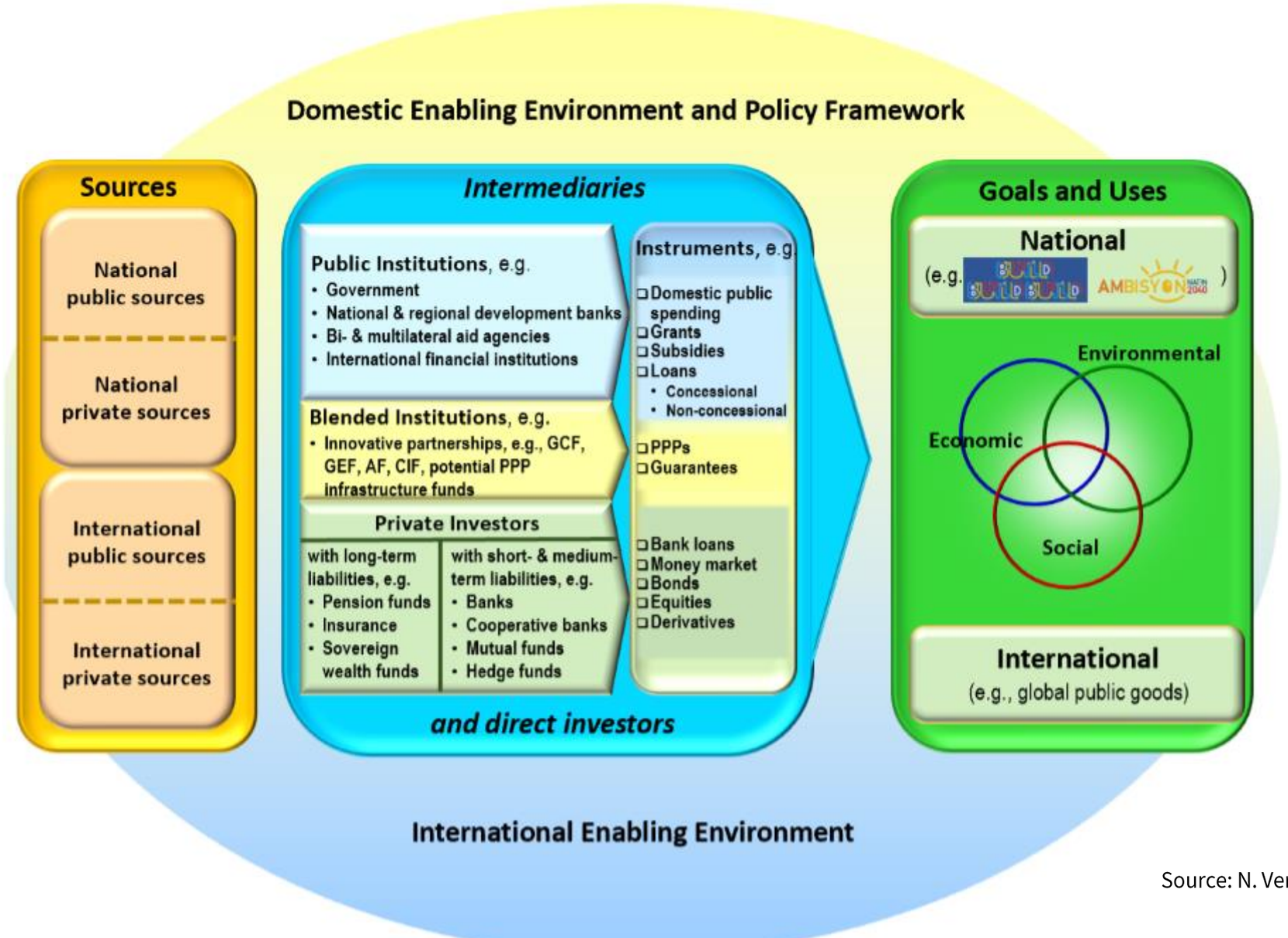
Source: BSP

What is Green Finance?



Source: N. Verdote (Apr 2019)

The Green Finance Framework



Source: N. Verdote (2019), UNDP (2014)

What is Green Finance?

Eligible Green Projects

This refers to eligible projects that contribute to environmental objectives such as climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation and pollution prevention and control.

Source: BSP

Existing Risks

Physical Risk

This refers to the risks resulting from climate change which can be event-driven (acute) or longer-term shifts in climate patterns (chronic) that may cause direct damage to assets or indirectly through the disruption of supply chain. Acute physical risks include floods, typhoons, droughts, wildfires, earthquake while chronic physical risks include changes in precipitation and extreme weather variability, rising sea levels and chronic heat waves.

Transition Risk

This refers to the uncertainty associated with policy and legal actions, technology changes, market responses and reputational considerations that occur in the process of mitigating climate change and reducing carbon emissions.

Environmental and Social Risk

This refers to the potential negative consequence to a business that result from its impacts (or perceived impacts) on the natural environment (i.e., air, water, soil) or communities of people (e.g. employees, customers, local residents).

Source: BSP

Green Finance Delivery Instruments

Part 1: Capital / debt / equity facilitation

Instrument	Example
Seed Capital	UNEP's Seed Capital Assistance Facility - addresses investment gaps in early stages, by providing financial support on a cost-sharing and co-financing basis via private equity & VC
Grants • typically provided for non-revenue generating activities such as knowledge management and capacity building programs • sourced from international financial institutions, bilateral institutions, and international climate funds.	Readiness and Preparatory Support (Climate Change Commission) proposed to GCF: US$ 692,000 facility over 1.5 years
Concessional and non-concessional lending • Lending instruments provide borrowers with capital in exchange of a repayment with a pre-determined interest rate. • provides access to finance without relinquishing ownership • "Concessional": offered on more generous terms than market rates (zero or low interest rate, extended term, interest rate flexibility during project life.	US$ 6.1 million of concessional loan from the Clean Technology Fund (CTF) for expansion of the Renewable Energy Accelerator Program in Philippines to address damages caused by Haiyan + build 150 MW solar and biomass projects.

Green Finance Delivery Instruments

Part 1: Capital / debt / equity facilitation

Instrument	Example
Equity Investment • refers to the sale of an ownership interest to raise funds for business purposes. To facilitate the project, public actors can also invest into it. • They include: • Venture capital, by which capital investors provide early stage capital to entrepreneurs and start-up companies (high risks, high returns) • Stocks, which typically gives holders a share of the ownership of a corporation, as well as voting rights. Is a source of long term permanent capital for the corporation. In case of liquidation, the holders will get the remaining assets of the company only after the liabilities of the rest of creditors are satisfied. • Equity funds of pooled investment can be created to increase investment growth through capital dividends in several projects or companies.	Asia Climate Partners (ACP) is a private equity fund for clean energy, resource efficiency, and environmental investments in Asia. • ACP is managed by ADB, Robeco, and ORIX Corporation and supported by UK Government. • It has a target of $750 million, with $100 million coming from the ADB. • The fund's objective is to invest in privately held companies that are benefiting from the macroeconomic and environmental dynamics in emerging Asia, have a positive impact on the environment and society, and have the potential to generate a commercially attractive annual return.

Green Finance Delivery Instruments

Part 1: Capital / debt / equity facilitation

Instrument	Example
Others	Debt for Nature/Climate Swaps

Part 2: Risk Mitigation

Instrument	Example
Guarantees • allows borrowers to obtain cover for their obligations towards a lender in case of nonperformance or default in exchange of a fee. They can have a partial or entire coverage of the investment.	The ADB-backed 1st Climate Bond in Asia and the Pacific in 2016 • ADB provides credit-enhancement to the Tiwi-MakBan geothermal energy facilities. • The PHP10.7 billion ($225 million equivalent) local currency bond comes in addition to a direct ADB loan of PHP1.8 billion ($37.7 million equivalent). • ADB's credit enhancement is in the form of a guarantee of 75% of principal and interest on the bond.

Green Finance Delivery Instruments

Part 2: Risk Mitigation

Instrument	Example
Insurances • Climate insurance would not necessary require additional finance, since the insured can generally finance the insurance program. • They can facilitate risk reduction and preventive practices by directly rewarding investment in risk reduction by lowering the premium.	• **Weather-indexed insurance instruments**, e.g. Weather Index-Based Crop Insurance (WIBCI) by Philippine Crop Insurance Corporation piloted in 2014 • **Sovereign insurance programs**, e.g. Philippine City Disaster Insurance Pool (December 2018) developed as part of the 2015 Disaster Risk Financing and Insurance Strategy. • utilizes a “parametric insurance structure” basing payouts on the occurrence of earthquakes and typhoons according to their physical features, rather than actual losses. • **Indexed microinsurance**, e.g. CARD Pioneer Micro-insurance Inc. (CPMI) in 2016

Module 1, Part D.1

PH Green Finance Windows

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Development Bank of the Philippines (DBP)

- The Green Financing Program is DBP's umbrella program to support the Bank's strategic thrust of environmental protection and the country's green growth strategy.
- Investment options/ Eligible expenditures: capital investments, working capital, consulting services (cost of eco design; FS/detailed engineering design); transaction cost for CDM/ other carbon crediting mechanisms; refinancing, in addition to a new loan proposal for an eligible project
- Eligible projects: resource conservation, resource efficiency, and cleaner production projects; climate change adaptation and mitigation, and disaster risk reduction; other environment/ green projects/ initiatives, among others
- Eligible borrowers: private corporations/ enterprises; local government units (LGUs); government owned and controlled corporations; government agencies; water districts/ private service providers; cooperatives/ associations; PFIs/ MFIs

- Status update (2017)*
  - Total loan granted amounted to PHP244M comprised of 3 projects (as of 2017/Q3). Total loan releases amounted to PHP1.4B covering 6 projects with ongoing constructions. (Excluding loans under FUSED, Forest, Water, Sustainable Agri programs)

Source: DBP Major Programs and Projects and Status of Implementations (2017)

DBP Development Bank of the Philippines

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Land Bank of the Philippines

- The Land Bank of the Philippines' (a government financial institution) Climate SMART (Synergistic Mitigation, Adaptation, Resiliency, and Transformation) Program - a suite of lending facilities focused on addressing the various aspects of climate change
- Investment options: capital expenditure; working capital financing; project preparation (FS, detailed engineering design, assessment studies to support securing permits, licenses and approvals
- Eligible projects: EE and RE; adaptation and resiliency
- Eligible borrowers: sole proprietorship; partnerships; corporations (at least 60% Filipino-owned); cooperatives/associations; local government units (LGUs); financial institutions (FIs); government owned and controlled corporations (GOCCs); government agencies (GAs); non-government organizations (NGOs)

- Status update (August 2017)
  - RE lending program approved loan amount: PHP 17.65B (43 projects)

Source: Land Bank of the Philippines' website; Financing Opportunities for Renewable Energy (2017)

LANDBANK

Sustainable Energy Finance (SEF) Program

- launched in 2009 as a cooperation between the International Finance Corporation (IFC) and the Bank of the Philippine Islands (BPI) and in the following year between IFC and BDO Unibank, Inc. ► designed to encourage local enterprises (e.g., industrial/manufacturing companies, equipment vendors/integrators, agri-business) to invest in RE and EE solutions
- Investment options: capital expenditure, working capital financing, equipment leasing
  - BPI and BDO offer market-rate loans
- BPI and BDO put emphasis on a client-oriented application process (e.g., free walkthrough energy audit and validation of financial and technical data)
- Results:
  - between 2009 and 2015 the SEF Program has facilitated over $3B worth of SE project investments (banks disbursed USD 880M worth of loans) estimated to reduce GHG emissions by up to 2 M tons CO2e/year
  - BDO issued $150M Green Bond in Dec 2017

ASEAN Green Finance State of the Market

Highlights

- **Total ASEAN** Green and Sustainability Bonds outstanding amounting **to $1.6 billion USD**
- **81%** of ASEAN green bonds, by volume, have an external review, which demonstrates best practice
- **Buildings** is the largest category financed by green bonds (43% of the market by volume), followed by **energy** at 32%
- **Philippine firms** have raised **$1.5 billion USD equivalent** across **8 transactions** (labelled under various standards including **CBI and ASEAN**). Notably, **45%** of was denominated or linked to **pesos.**
- A high proportion of the **Philippine-related green bonds** have been **Climate Bonds certified – therefore automatically eligible for ASEAN GBS** – currently two issues, to date, have sought the ASEAN label (RCBC)

Sovereign sukuk and loans fuelling 2018 ASEAN green bond market growth

Note: *All 2018 data as of 30 November 2018*

Source: Climate Bonds Initiative

Green + Social = Sustainability Bond

ACMF
ASEAN Social Bond Standards

+

ACMF
ASEAN Green Bond Standards

ACMF
ASEAN Sustainability Bond Standards

Sustainability Bonds are bonds where the proceeds will be exclusively applied to finance or re-finance a combination of both Green and Social Projects.

ASEAN Capital Markets Forum

ICMA
International Capital Market Association

Source:

Securities and Exchange Commission PHILIPPINES

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ASEAN Green Bond Standards

ASEAN Capital Markets Forum

ASEAN Green Bond Standards

BlackRock

Norges Bank

Aviva Investors

Vontobel

Amundi Asset Management

Fidelity Investments

GREEN INVESTORS

ICMA International Capital Market Association

The Green Bond Principles

ASEAN Capital Markets Forum

Additional Features:

1. Use of Proceeds
2. Framework for Selection
3. Management of Proceeds
4. Annual Reporting

a) ASEAN Issuer/Issue
b) No Fossil Fuel Power
c) Disclosure on website
d) Encourage more frequent reporting
e) Qualifications for external reviewers

ASEAN GREEN ISSUERS

Renewable Energy

Sustainable Water

Mass Transit

Efficient Infra

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Source:

Securities and Exchange Commission PHILIPPINES

Beyond Green Bonds: Social Bonds

- Affordable Basic Infra
- Access to Essential Services
- Affordable Housing
- Employment Generation
- Food Security
- Socio-economic Advancement and Empowerment

Social Bonds are use of proceeds bonds that raise funds for new and existing projects with positive social outcomes.

- Use of Proceeds
- Process for Project Evaluation and Selection
- Management of Proceeds
- Reporting

Negative list: projects which involve activities that pose a negative social impact related to:

- Alcohol
- Gambling
- Tobacco
- Weaponry

ASEAN Capital Markets Forum

The Social Bond Principles

Source:

Securities and Exchange Commission PHILIPPINES

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ASEAN Green Bond Standards

ICMA
International Capital Market Association
The Green Bond Principles

ASEAN Capital Markets Forum

Additional Features:

ASEAN Capital Markets Forum
ASEAN Green Bond Standards

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Source:

Securities and Exchange Commission PHILIPPINES

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ASEAN Green/SOCIAL/SUSTAINABILITY Bonds Outstanding

Total Outstanding: **$1.6 billion USD**

No	Name of Issuer	Type of Project	Country of Issuance	Currency	Issuance Size (Million)	Amt. Issued (Million)	Amt. Issued (USD Million)	Issue Date	Tenure (Years)	Bond/ Sukuk Listing	Green/ Social/ Sustainability Bond
1	PNB Merdeka Ventures Sdn Bhd	Green building	Malaysia	MYR	2,000.00	690.00	166.00	29 Dec 2017	5-15	Not listed	Green
						445.00	107.06	28 June 2019	7-13	No listed	
2	Segi Astana Sdn Bhd	Green building	Malaysia	MYR	415.00	415.00	100.00	8 Jan 2018	10	Not listed	Green
3	Sindicatum Renewable Energy Co Pte Ltd	Renewable Energy	Singapore	INR	N.A.	2,500.00	36.60	19 Jan 2018	5, 7	LSE	Green
4	UiTM Solar Power Sdn Bhd	Renewable Energy	Malaysia	MYR	240.00	222.30	53.60	27 Apr 2018	2-18	Not listed	Green
5	Sindicatum Renewable Energy Co Ltd	Renewable Energy	Singapore	PHP	N.A.	1,060.20	20.30	9 Aug 2018	10	LSE	Green

ACMF ASEAN Green Bond Standards

ACMF ASEAN Social Bond Standards

ACMF ASEAN Sustainability Bond Standards

Source: Securities and Exchange Commission PHILIPPINES

ASEAN Green/SOCIAL/SUSTAINABILITY Bonds Outstanding

No	Name of Issuer	Type of Project	Country of Issuance	Currency	Program Size (Million)	Amt. Issued (Million)	Amt. Issued (USD Million)	Issue Date	Tenure (Years)	Bond/ Sukuk Listing	Green/ Social/ Sustainability Bond
6	Kasikornbank Public Co. Ltd.	Financing of green and social projects	Thailand	USD	100.00	100.00	100.00	30 Oct 2018	5	GreTai	Sustainability
7	B. Grimm Power Public Co. Ltd.	Renewable Energy	Thailand	THB	5,000.00	5,000.00	156.20	20 Dec 2018	5,7	Not listed	
8	AC Energy Finance International Limited	Renewable Energy	Philippines	USD	N.A.	300.00	300.00	22 Jan 2019	5	SGX	Green
						110.00	110.00	4 Feb 2019	10	Not listed	
9	Rizal Commercial Banking Corp.	RE, Green Buildings, Clean Transport, Energy Efficiency, Pollution Prevention & Control	Philippines	PHP	15,000.00	15,000.00	287.00	1 Feb 2019	1.5	PDEx	Green

ACMF ASEAN Green Bond Standards

ACMF ASEAN Social Bond Standards

ACMF ASEAN Sustainability Bond Standards

As of 5 [illegible] 2019

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Source: Securities and Exchange Commission PHILIPPINES

ASEAN Green/SOCIAL/SUSTAINABILITY Bonds Outstanding

No	Name of Issuer	Type of Project	Country of Issuance	Currency	Program Size (Million)	Amt. Issued (Million)	Amt. Issued (USD Million)	Issue Date	Tenure (Years)	Bond/ Sukuk Listing	Green/ Social/ Sustainability Bond
10	Pasukhas Green Assets Sdn Bhd	Environment & Natural Resource Preservation, Energy Conservation, RE and/or GHG Reduction	Malaysia	MYR	200.00	17.00	4.10	28 Feb 2019	1-20	Not listed	Green
11	Rizal Commercial Banking Corp.	RE, Green Buildings, Clean Transport, Energy Efficiency, Pollution Prevention & Control, Sustainable Water Management, Environmentally Sustainable Management of Living Natural Resources and Land Use, Affordable Basic Infrastructure, Access to Essential Services, Employment Generation, Affordable Housing, and Socioeconomic Advancement and Empowerment	Philippines	PHP	8,000.00	8,000.00	153.07	4 June 2019	2	PDEx	Sustainability

ACMF ASEAN Green Bond Standards

ACMF ASEAN Social Bond Standards

ACMF ASEAN Sustainability Bond Standards

As of 5 [illegible] 2019

Source: Securities and Exchange Commission PHILIPPINES

Philippine Green Bond Issuances

AP RENEWABLES INC.

- **PHP12.5 Billion** **(2016)**
- **"Firsts":** labelled Green Bond in Philippines; CBI-certified in Asia Pacific; CBI-certified for a single project in Emerging Markets; project finance notes issued in PHP in the power sector; credit-enhanced project notes in SEA (excluding Malaysia) since '97-98 Asian crisis

BDO We find ways

- **USD150 Million** **(2018)**
- **IFC's first green bond investment** in a financial institution in East Asia and the Pacific.

IFC International Finance Corporation WORLD BANK GROUP

- **PHP4.8 Billion** **(2018)**
- **First green bond denominated in pesos** and **issued by a multilateral development institution.**

Sindicatum renewable energy

- **PHP1.06 Billion** **(2018)**
- A **synthetic local currency** issue covering PHP but issued and settled in USD.
- **First 10-year local currency Green Bond** transaction from South East Asia.

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Philippine Green Bond Issuances

- **USD150 Million** **(2018)**
- China Bank's **first** green bond.
- This green bond will bring up China Bank's climate portfolio to over US$200 million

- **PHP15 Billion** **(2019)**
- **First labelled-ASEAN Green** Bond issued in the Philippines.

- **USD410 Million** **(2019)**
- First publicly syndicated CBI-certified US$ Green Bond in Southeast Asia.

- **PHP8 Billion** **(2019)**
- **First labelled-ASEAN Sustainability Bond** issued in the Philippines.