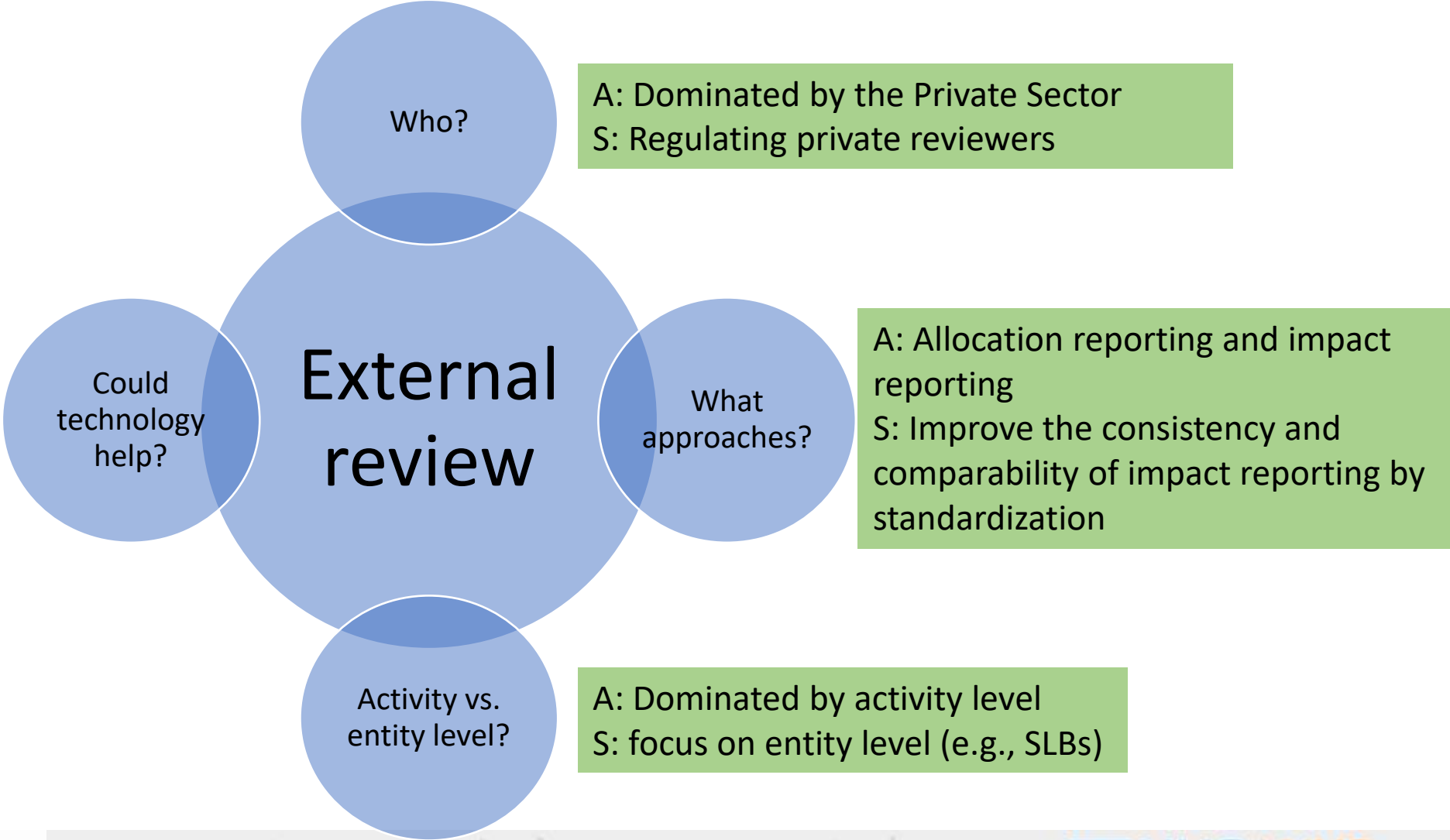


Green External Review and Assessment

Discussant: Weina Zhang, SGFIN | NUS

11 July 2022

Main Questions and Answers



Main Comments

- **Who:** Private sector solutions currently dominate the green external review market, and offer a range of different approaches, such as second-party opinions, third-party certifications, ESG ratings, assurance, and audit.
-> **Comment #1:** Who can the regulators focus first?
- **What approach:** Clear and meaningful reporting underpins any effective external review or assessment of green bonds.
-> **Comment #2:** how to incentivize SMEs for high-quality disclosure?
- **New green finance instruments,** and most particularly sustainability-linked debt (such as sustainability-linked bonds, or SLBs), have built-in quantitative targets against performance indicators.
-> **Comment #3:** How can financial market facilitate the information dissemination?
- **Lastly,** greater availability of data is needed to broaden the scope for verifying outcomes related to environmental objectives.
-> **Comment #4:** Who else can help to increase the data availability?

Comment #1: Who can regulators focus on first?

	What	How	Who
SPO	Issuer framework	ICMA GBP/GLP	Sustainalytics CECERO
Certification	Issue framework, proceeds	CBI, taxonomies	CBI
Assurance	Compliance	Accounting principles	Audit firms
ESG ratings	Sustainability credentials	ESG scorecard	MSCI Vigeo Riris

Example: SGX's Sustainability Reporting Milestones

2009: Published SGX's first own sustainability report

2010: Issued Policy Statement on Sustainability Reporting

2013: First Green Bond Listing

2016: Introduced Sustainability Reporting requirements

2016: Joined UN Sustainable Stock Exchanges initiative

2016: TCFD Vice Chair appointment

2016: Launched iEdge ESG indices

- GRI ASEAN Hub partner
- Knowledge Partner to Asia Sustainable Finance Initiative (ASFI)
- Launched low-sulphur fuel oil (LSFO) derivative contract
- Co-developed Maritime Sustainability Reporting Guide
- Inaugural sustainability reporting review with CGIO and NUS-CGS

▪ Announced the launch of Climate Impact X

▪ Scientific Beta launched Climate Impact Consistent Indices

▪ Launched ESG Derivatives

▪ Launched decarbonisation and transition opinion guide

▪ Second sustainability reporting review with NUS-CGS

▪ Joint study with KPMG & NUS-CGS: "Perspectives of Financial Institutions on Sustainability Disclosures"

▪ SGX-NUS Case Competition: Carbon Credits



Source: <https://first.sgx.com/>

SGX recommends a list of 27 “Core ESG Metrics” for issuers to use as a starting point for sustainability reporting.

Pillars	Topic	Metric	Unit
E	Greenhouse Gas Emissions (“GHG”)	Absolute emissions by: (a) Total; (b) Scope 1, Scope 2; and (c) Scope 3, if appropriate	tCO2e
		Emission intensities by: (a) Total; (b) Scope 1, Scope 2; and (c) Scope 3, if appropriate	tCO2e/organisation specific metrics
	Energy Consumption	Total energy consumption	MWhs or GJ
		Energy consumption intensity	MWhs or GJ/organisation specific metrics
	Water Consumption	Total water consumption	ML or m ³
		Water consumption intensity	ML or m ³ /organisation specific metrics
Waste Generation	Total waste generated	t	
S	Gender Diversity	Current employees by gender	%
		New hires and turnover by gender	%
	Age-Based Diversity	Current employees by age groups	%
		New hires and turnover by age groups	%
	Employment	Total turnover	Number and %
		Total number of employees	Number
	Development & Training	Average training hours per employee	Hours/No of Employees
		Average training hours per employee by gender	Hours/No of Employees
	Occupational Health & Safety	Fatalities	Number of cases
		High-consequence injuries	Number of cases
Recordable injuries		Number of cases	
Recordable work-related ill health cases		Number of cases	
G	Board Composition	Board independence	%
		Women on the board	%
	Management Diversity	Women in the management team	%
	Ethical Behaviour	Anti-corruption disclosures	Discussion and Number of Standards
		Anti-corruption training for employees	Number and %
	Certifications	List of relevant certifications	List
	Alignment with Frameworks	Alignment with frameworks and disclosure practices	GRI/TCFD/SASB/SDGs/Others
Assurance	Assurance of sustainability report	Internal/External/None	

ASEAN GDP Per Capita (1)

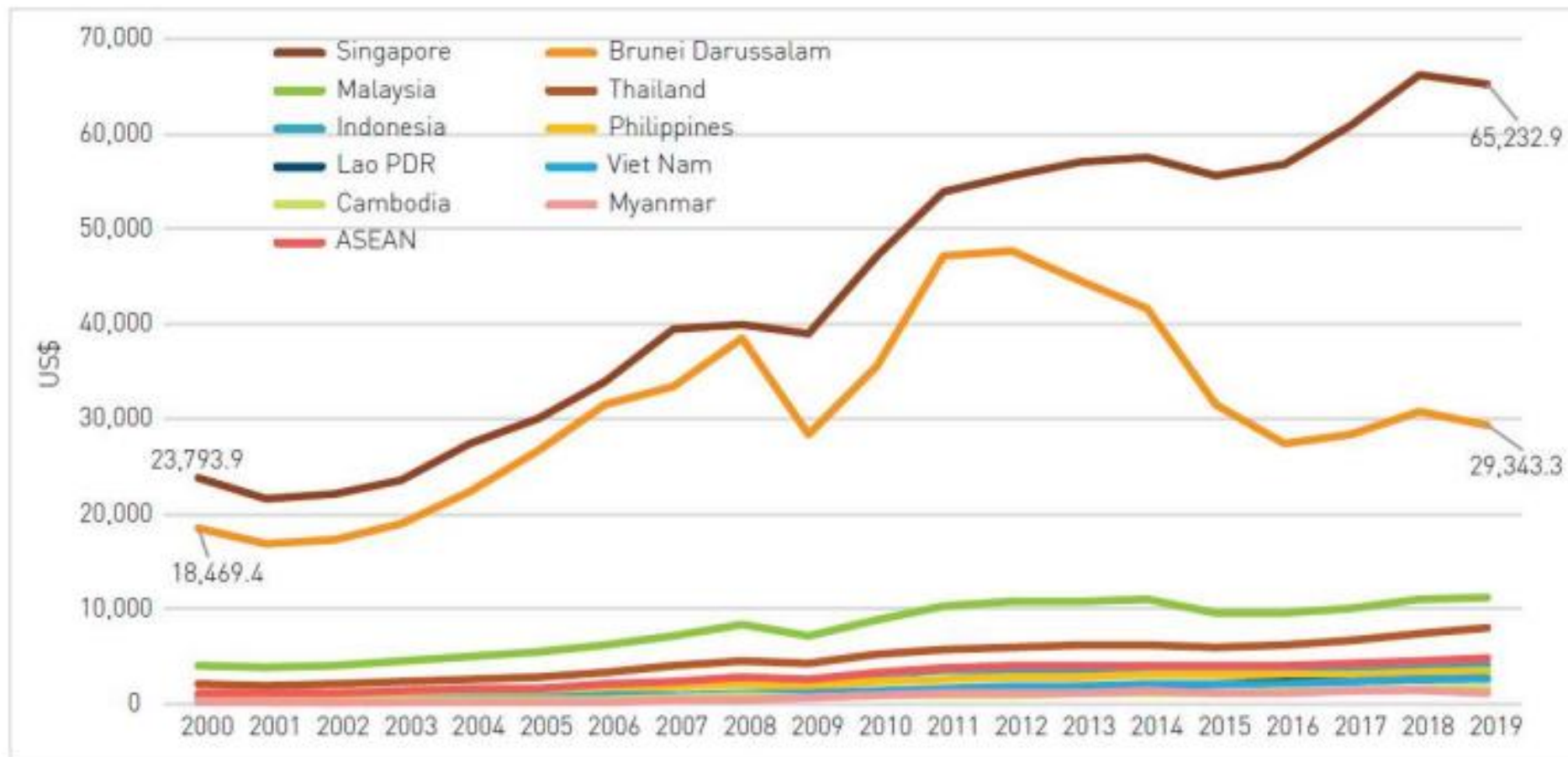


Figure 1: GDP per capita (US\$) by ASEAN Member States, 2000-2019 (ASEAN, 2020 [1])

<https://asean.org/wp-content/uploads/2021/11/ASEAN-Taxonomy.pdf>

ASEAN GDP Per Capita (2)

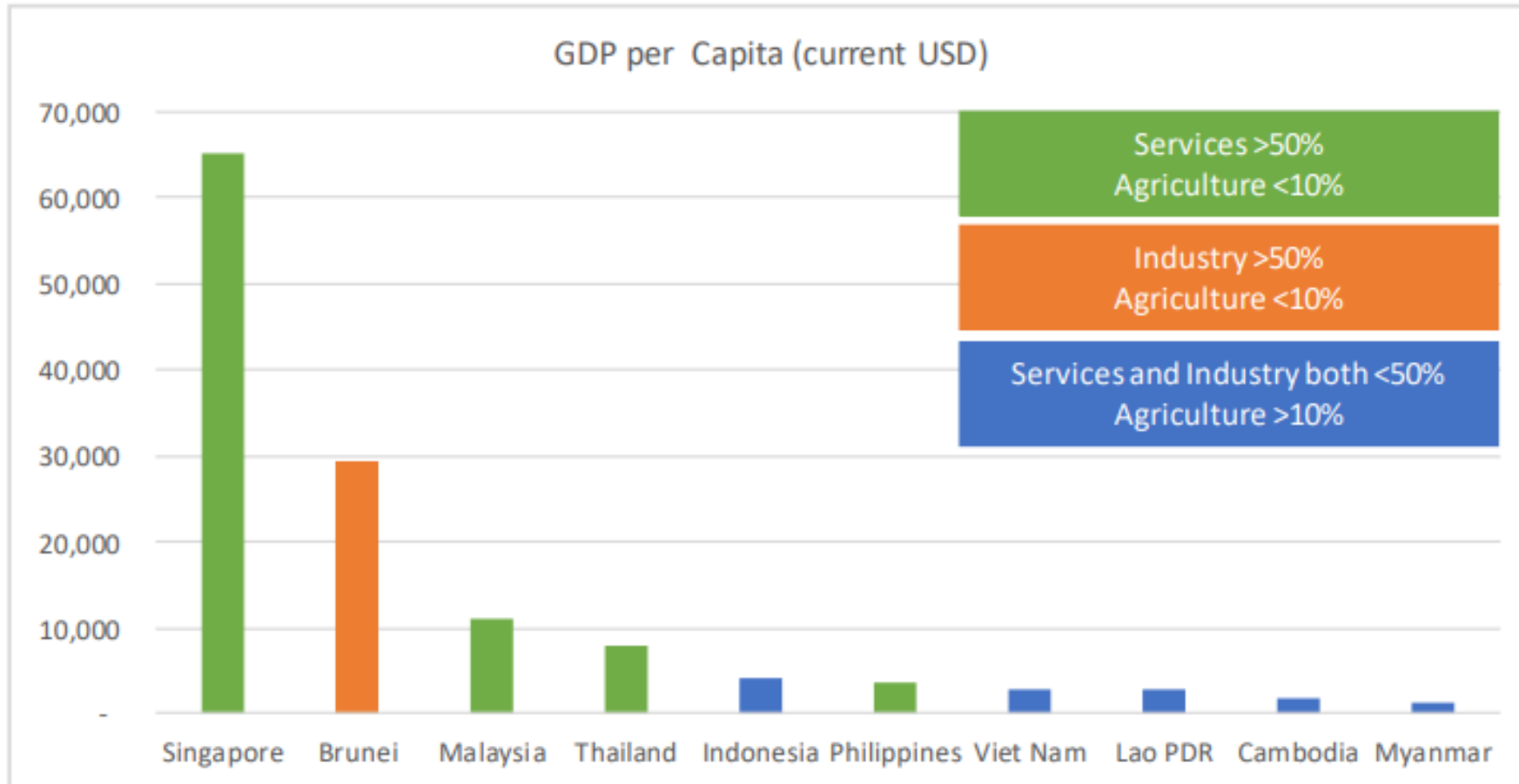












Figure 2: AMS 2019 GDP per capita and Economy Categorisation (ASEAN, 2020 [1])

<https://asean.org/wp-content/uploads/2021/11/ASEAN-Taxonomy.pdf>

ASEAN NDC

Table 1: Progress on NDC implementation in ASEAN (UNESCAP, 2020)

Activities	BN	KH	ID	LA	MY	MM	PH	SG	TH	VN
										
Mainstreaming										
Coordination										
Finance and resources										
Measurement reporting and verification (MRV)										

Nascent	Engaged	Capable	Effective
BN – Brunei Darussalam; KH – Cambodia; ID – Indonesia; LA – Lao PDR; MY – Malaysia; MM – Myanmar; PH – The Philippines; SG – Singapore; TH – Thailand; VN – Viet Nam			

ASEAN Taxonomy (1)

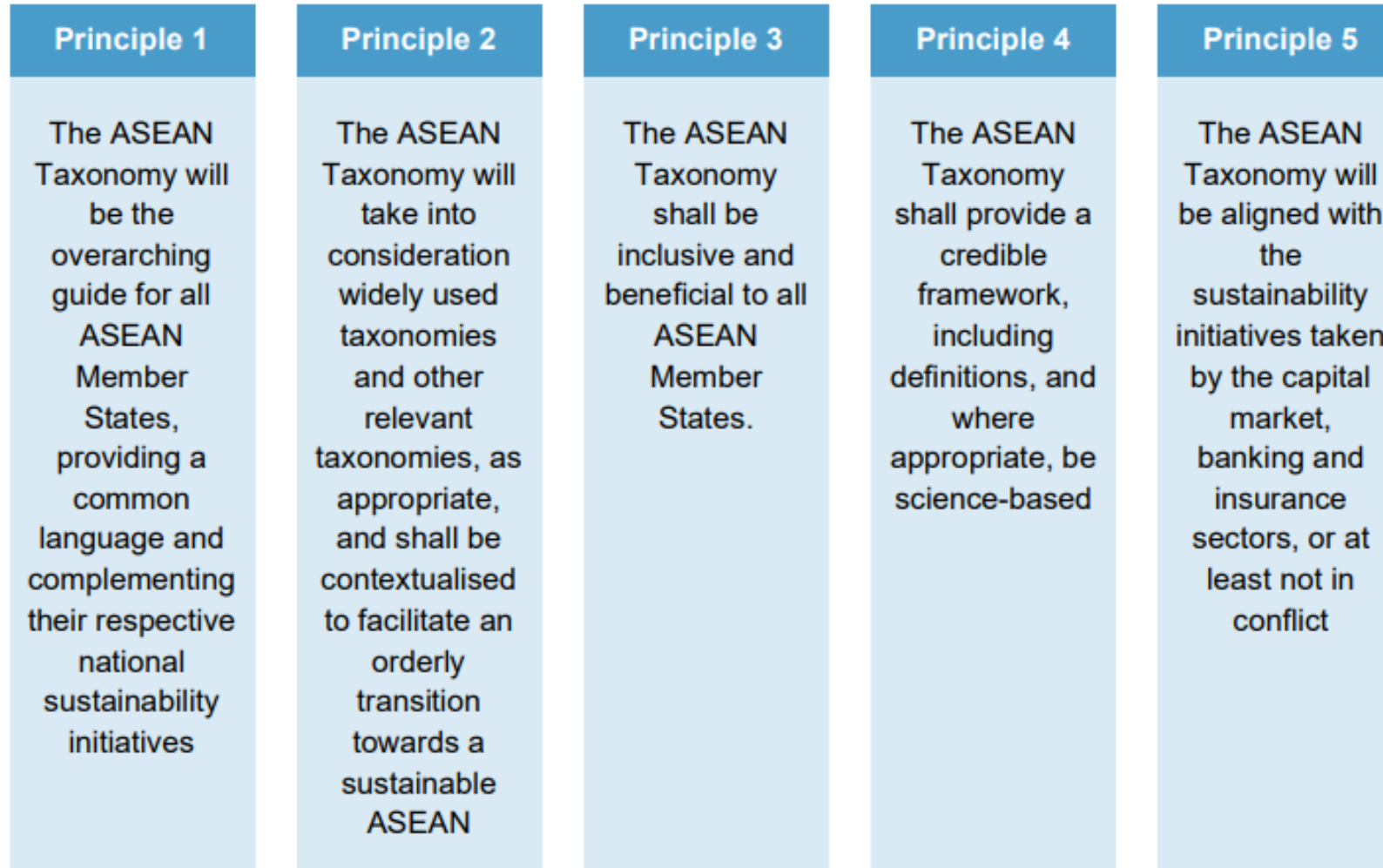


Figure 9: ASEAN Taxonomy 5 High Level Principles

ASEAN Taxonomy (2)

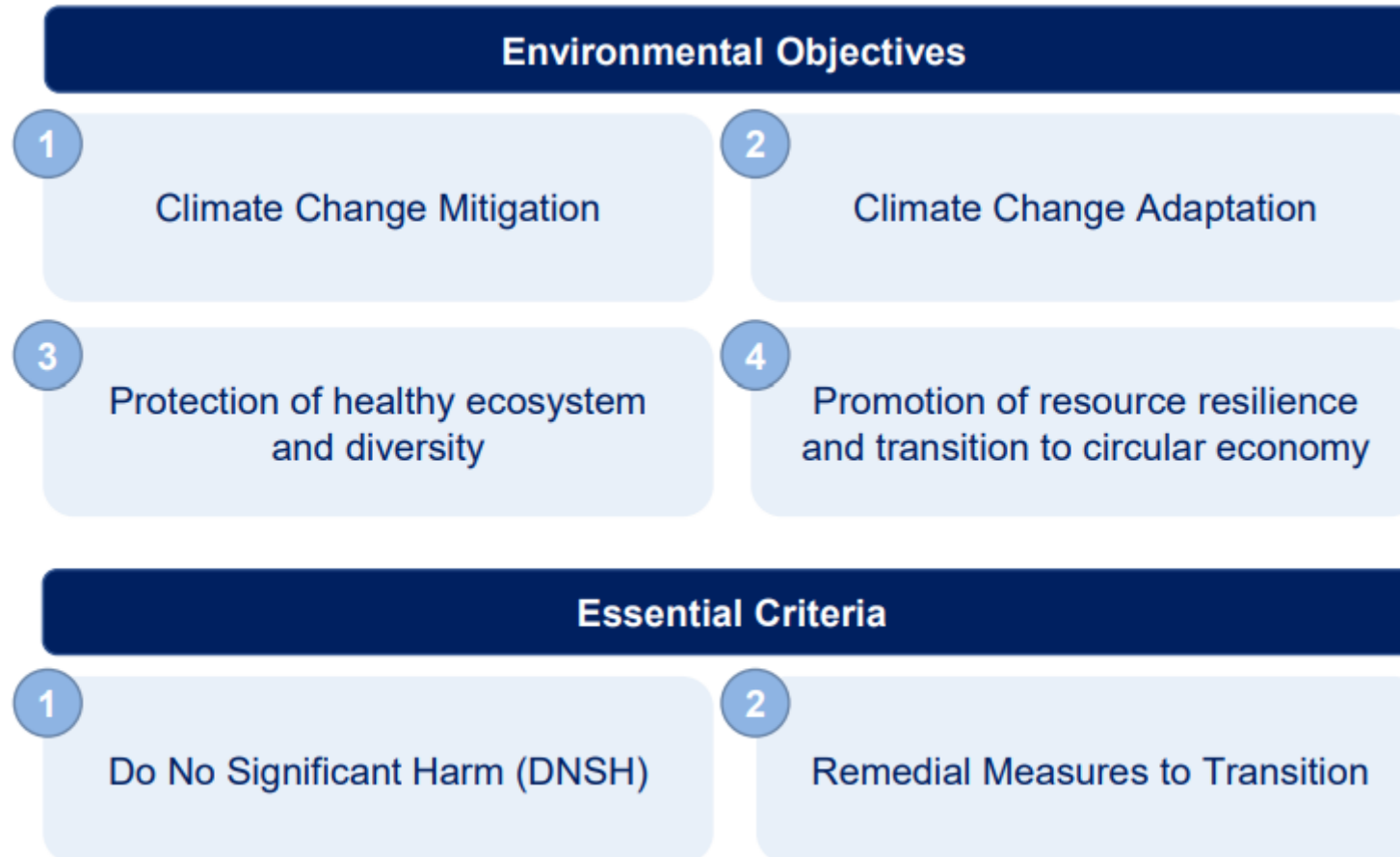


Figure 11: Environmental Objectives and Essential Criteria

Comment #2: How to incentivize SMEs?

- For the public-listed firms, standardization and regulations can be enforced. (Singapore, Taiwan, Hong Kong SAR and China)
- How about private firms (SMEs)?
 - Training and empowerment
 - Cost and benefits analysis
 - Standardization of the metrics can be potentially enforced through development banks, commercial banks and microfinance institutions.
 - In Singapore, Singapore Enterprise Association can play a more important role in empowering SMEs in tracking, measuring and reporting the impact metrics.

Comment #3: Bond Market Information Disclosure

- Government bonds and corporate bonds are still lacking in the information disclosures in pricing and volume.
 - In the U.S., FINRA took many years to enforce the establishment of TRACE
 - In China, WIND is catching up in providing more pricing information of bond instruments.
 - In other Asian countries, there is still a lack of pricing and trading information of the green securities. Bloomberg and Cbond are still increasing in their coverage of the green bonds etc.
 - Globally, there is a lack of free bond pricing databases like TRACE in the U.S.
 - World Bank, ADB, CBI have limited data disclosures in GB's impact.

Comment #4: FinTech Applications

- Implementation of IoT in reliable data collection:
 - Indonesia – AIDF and SGFIN track the sustainable farming activity of the farmers.
 - Myanmar – SGFIN is engaging the local capacity builder to innovate for financial solutions to support sustainable farming by the locals.
- Carbon Trading platforms would help to facilitate the further adoption by public and private listed companies as it provide right monetary incentives for trading the carbon credits.

In Summary

- Regulate the listed companies in standardized impact measurement and reporting
- Incentivize the private firms with financing benefits such as lower cost of capital and revenues from carbon trading
- Empower investors and consumers to hold the firms accountable for their disclosures.
- Further development of financial market instruments in terms of transparency, depth and breath of the green securities.